Cert Clearance 4/18/96
SN 5493

MAY 31 1996

In Reply Refer To: MS 5232

Tennessee Gas Pipeline Company
Attention: Mr. B. J. Chaney
Sugar Mill Point
1115 Regal Row
Houma, Louisiana 70360

Gentlemen:

Your letter dated March 12, 1996, requests approval to permanently abandon in place approximately 12,832 feet (2.43 miles) of 6 5/8-inch pipeline designated as Segment No. 5493, and to relinquish in its entirety, Right-of-Way Grant OCS-G 4150 associated therewith. The subject pipeline was used to transport gas from Platform A in Block 58 to a subsea tie-in with a 16-inch pipeline in Block 71, East Cameron Area.

Pursuant to 30 CFR 250.4(b), approval is hereby granted to abandon the above described pipeline, and in accordance with 30 CFR 250.159(c), the requirement that the pipeline be removed is hereby waived. However, in the future, should it be determined that this abandoned pipeline constitutes a hazard to navigation or commercial fishing operations or unduly interferes with the other uses of the Outer Continental Shelf, Tennessee Gas Pipeline Company shall be required to remove it.

Pursuant to 30 CFR 250.150(b), the relinquishment of the right-of-way grant associated with the pipeline that is to be abandoned in place is hereby accepted effective March 15, 1996.

Sincerely,

(Orig. Sgd.) Kent E. Stauffer

Donald C. Howard
Regional Supervisor
Field Operations

bcc: 1502-01 (P/L OCS-G 4150) w/enclosures (K.Faust) (MS 5232)
1502-01 (P/L OCS-G 4150) (microfilm) (MS 5033)
MS 5421
MS 5232 Carto

WWilliamson:amm:4/9/96:Tennesse.493

G4150 SN 5493

On mf 6/6/96

Tennessee Gas Pipeline
Tenneco Energy
Sugar Mill Point
1115 Regal Row
Houma, Louisiana 70360

Tel 504 868 6785
Fax 504 868 1423

March 12, 1996

TENNECO Energy

U S. Department of the Interior
Minerals Management Service
Gulf of Mexico OCS Region
1201 Elmwood Park Boulevard
New Orleans, LA 70123-2394
Attention: Warren Williamson

Re. Permanent Abandonment and Relinquishment of Pipeline Right of Way, OCS-G 4150, Seg. No 5493, East Cameron Block 58-A Line

Dear Warren:

In accordance with Title 30 CFR Part 250, Subpart J, 250.156 and 250.164, Tennessee Gas Pipeline Company hereby requests approval to permanently abandon and relinquish approximately 2.43 miles of six inch (6") pipeline in the East Cameron Area, Offshore Louisiana

The temporary cessation of the above pipeline was approved on July 8, 1992. Tennessee Gas Pipeline Company hereby requests approval to relinquish the pipeline right of way associated with this abandonment. TGP is requesting this permanent abandonment and relinquishment based on the fact that there is no future use for this pipeline This line has been abandoned as proposed since August 1992.

If you should require any additional information regarding this matter, please call this office.

Sincerely,

B J Chaney, Supervisor Rights
of Way as Agent and Attorney-in-Fact

KJC kjc

cc M Taylor
P Craft
P Alexis
L Rosales
File

Tennessee Gas Pipeline
Tenneco Energy
Sugar Mill Point
1115 Regal Row
Houma, Louisiana 70360

Tel 504 868 6785
Fax 504 868 1423

March 12, 1996

TENNECO Energy

U.S Department of the Interior
Minerals Management Service
Gulf of Mexico OCS Region
1201 Elmwood Park Boulevard
New Orleans, LA 70123-2394
Attention: Warren Williamson

Re: Permanent Abandonment and Relinquishment of Pipeline Right of Way, OCS-G 4150, Seg. No. 5493, East Cameron Block 58-A Line

Dear Warren

In accordance with Title 30 CFR Part 250, Subpart J, 250 156 and 250 164, Tennessee Gas Pipeline Company hereby requests approval to permanently abandon and relinquish approximately 2.43 miles of six inch (6") pipeline in the East Cameron Area, Offshore Louisiana.

The temporary cessation of the above pipeline was approved on July 8, 1992 Tennessee Gas Pipeline Company hereby requests approval to relinquish the pipeline right of way associated with this abandonment. TGP is requesting this permanent abandonment and relinquishment based on the fact that there is no future use for this pipeline This line has been abandoned as proposed since August 1992

If you should require any additional information regarding this matter, please call this office.

Sincerely,

B J. Chaney, Supervisor Rights of Way as Agent and Attorney-in-Fact

KJC.kjc

cc: M Taylor
P. Craft
P Alexis
L Rosales
File

SN 5493

MConner
Clearads 7-7-92

In Reply Refer To: MS 5232

JUL 08 1992

Tennessee Gas Pipeline Company
Attention: Mr. B. J. Chaney
1115 Regal Row
Houma, Louisiana 70360

Gentlemen:

Pursuant to the authority granted by 30 CFR 250.150(b), your request dated June 22, 1992, for modification of Right-of-Way OCS-G 4150 to allow for the temporary cessation of operation of pipeline Segment No. 5493 is hereby approved, subject to the following conditions:

1. The annual rental required by 30 CFR 250.159(c)(2) shall continue to be due and payable in December of each calendar year.

2. Tennessee Gas Pipeline Company shall, upon receipt of the necessary documentations which are required by the Federal Energy Regulatory Commission under Tennessee Gas Pipeline Company blanket abandonment authorization, file an application to permanently abandon the subject pipeline and relinquish the right-of-way grant.

Sincerely,

(Orig. Sgd.) A. Donald Giroir

D. J. Bourgeois
Regional Supervisor
Field Operations

bcc: 1502-01 (P/L OCS-G 4150) w/orig appln. (MS 5232)
1502-01 (P/L OCS-G 4150) w/cy of appln. (MS 5033)
MS 5280
MS 5232 Carto

MConner:ds:7/6/92

$ 4150

DW mcf
7/10/92

OCS-G-4150

Tennessee Gas Pipeline
A Tenneco Company

Sugar Mill Point
1115 Regal Row
Houma, Louisiana 70360
(504) 868-6785

TENNECO

KATHY
SN 5493

June 22, 1992

MINERALS MANAGEMENT SERVICE
RECEIVED
JUN 23 1992
FIELD OPERATIONS
GOM OCS Region, New Orleans, La.

Attention: Mike Conner
U. S. Department of the Interior
Minerals Management Service
Gulf of Mexico OCS Region
1201 Elmwood Park Boulevard
New Orleans, LA 70123-2394

Re: Temporary abandonment of 6" natural gas pipeline, East Cameron Block 58-A Line, OCS-G 4150

Dear Mike:

In accordance with Title 30 CFR Part 250, Subpart J, 250.156, Tennessee Gas Pipeline Company hereby requests approval to temporarily abandon the above referenced pipeline in the East Cameron Area, Gulf of Mexico, Offshore Louisiana.

This pipeline extends from Unocal's East Cameron Block 58-A Platform to a sub-sea tie-in with TGP's 16" pipeline in Block 71. The procedure which will be used to abandon this line is attached hereto.

Upon receipt of the necessary documentation, i.e. P & A reports, etc., which are required by FERC under TGP's blanket abandonment authorization, TGP will file to permanently abandon the above pipeline.

The line will be purged with sea water to remove any materials which may be harmful to the environment prior to abandonment.

Also, enclosed are three copies of Drawing Nos. TO-F2-507F-4500-1, 1A, 1B and 1B1, which have been red-marked to show the proposed work, along with a letter from Unocal requesting removal of the above facilities.

If you should require any additional information regarding this matter, please call this office.

Sincerely,

B. J. Chaney

B. J. Chaney, Supervisor
Rights of Way as Agent
and Attorney-in-Fact

BJC/KJC:sml

Enclosures

cc: O. O. Jones
D. Huebner
J. M. Nunnally
C. Whitney
R. Schorre
File

ABANDONMENT PROCEDURE
EAST CAMERON 58

1. Locate, uncover and close sub-sea Valve No. 507F-4501 in East Cameron Block 71, open 2" bypass valves. X = 1,562,868.78 Y = 248,900.06

2. Install 6" Poly pig in pig trap in East Cameron 58A Platform. (Note: This operation is usually handled by a second vessel with a high pressure water pump on board.)

3. Launch and run pig with high pressure water. (13,100 ft. of 6.625" O. D. x .375 W. T. Pipe = 18,450 gallons.)

4. When pig reaches sub-sea valve assembly, close 2" sub-sea bypass valves.

5. Bleed water pressure from line.

6. Unbolt flange at sub-sea tie-in station 0+31.8.

7. Cold cut 6" pipe at approximate station 0+37 and remove section to surface vessel.

8. Install 6" foreman plug in pipeline at abandoned end, previously cut in step 7. Bury end to 3 ft. of cover.

9. Install 6" blind flange at station 0+31.8 on flange previously unbolted in step 6. Bury end to 3 ft. of cover.

10. At East Cameron 58A platform, cut 6" pipeline sub-sea at base of riser. (water depth 50 ft.)

11. Install 6" foreman plug at abandoned end, previously cut in step 10. Bury end to a minimum of 3 ft. of cover.

12. Cut section of riser at approximate 0+17 elevation.

Unocal North America
Oil & Gas Division
Unocal Corporation
1018 Harding Street
P.O. Box 51388
Lafayette, Louisiana 70505-1388
Telephone (318) 232-9724

UNOCAL 76

May 27, 1992

Louisiana Region

Tennessee Gas Pipeline Company
1115 Regal Row
Houma, Louisiana 70360

Attention: Mr. O. O. Jones

RE: 6" Pipeline Abandonment
Line No. 507F4500
OCS-G 3530 Lease
East Cameron Block 58
East Cameron Block 57 Field
Offshore Louisiana

Dear Mr. Jones,

As per our telephone conversation of May 19, 1992, government regulations now require all structures in Unocal's East Cameron Block 58 to be permanently abandoned. As owner, Tennessee Gas Pipeline Company will be required to permanently abandon the referenced pipeline which serviced Unocal's E.C. 58-A Platform.

Salvage operations at the E.C. 58-A Platform are scheduled to commence in August 1992. This will necessitate the referenced pipeline to be abandoned and disconnected from the 58-A Platform by July 31, 1992. If this date is not suitable please contact the undersigned at (318) 266-6602.

Please contact the field engineer, Jeff Lott at (318) 266-6419 (if unavailable, contact the production foreman, Dale Faulk at (318) 898-4516) prior to mobilizing for this project.

Yours very truly,

Union Oil Company of California

Blake Shivers

Blake Shivers
Production Engineer, (PED)

TAX DISTRICT DATA

BEST AVAILABLE COPY

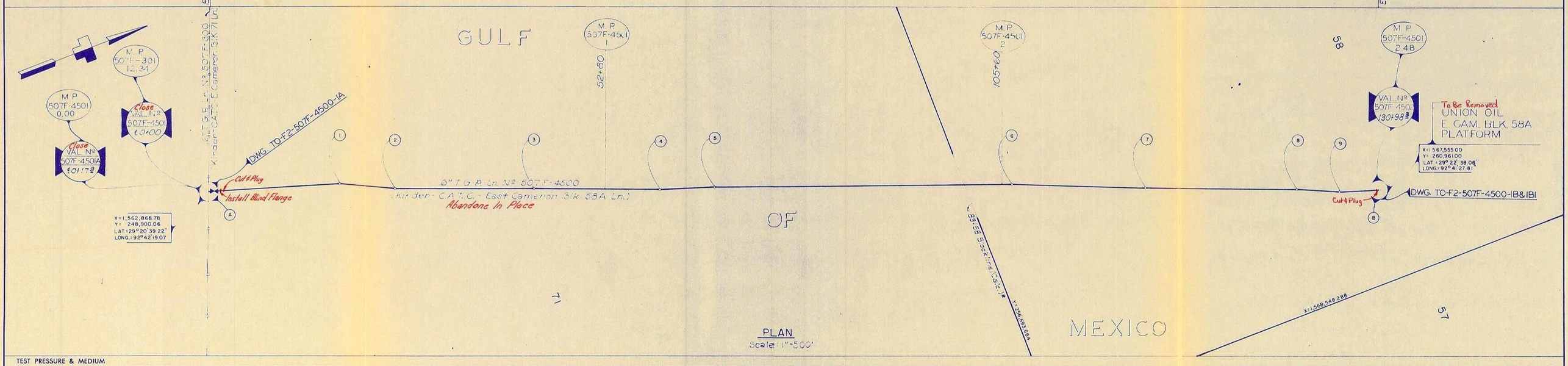
OWNERSHIP & LINE LIST NO.
(E. CAM. BLK. 58 A)

Federal Offshore

United States Of America
(Gulf Of Mexico)

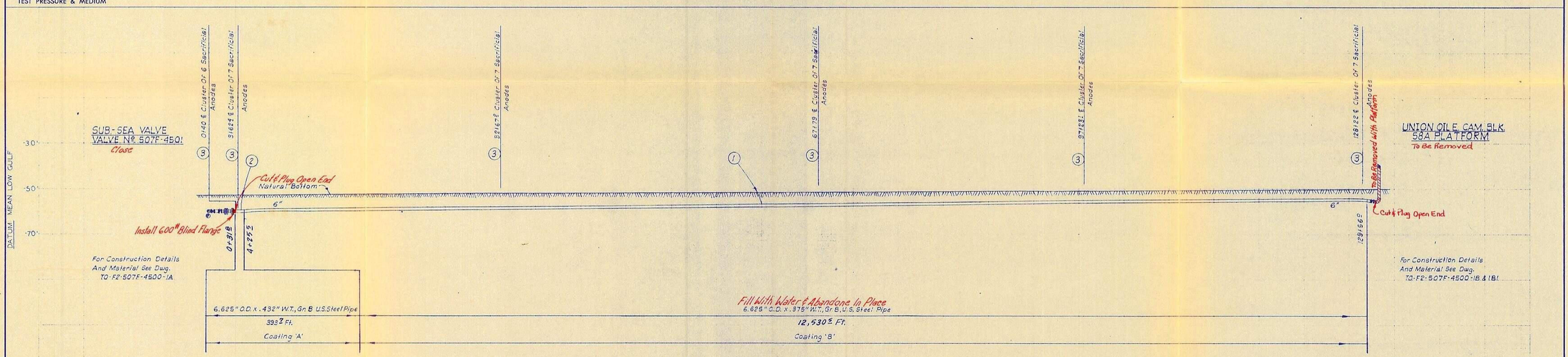
Begin Line

End Line



PLAN
Scale: 1"=500'

TEST PRESSURE & MEDIUM



PT.	BEARING & DISTANCE		LAMBERT	COORDINATES	PT.	BEARING & DISTANCE		LAMBERT	COORDINATES
A			X = 1,562,868.78	Y = 248,900.06					
1	N 17°53'38" E	– 1,425.91'	X = 1,563,306.87	Y = 250,256.99					
2	N 26°27'22" E	– 615.74'	X = 1,563,581.19	Y = 250,808.25					
3	N 21°23'37" E	– 1,536.21'	X = 1,564,141.38	Y = 252,238.62					
4	N 21°51'45" E	– 1,398.76'	X = 1,564,662.33	Y = 253,536.78					
5	N 18°49'49" E	– 603.37'	X = 1,564,857.11	Y = 254,107.85					
6	N 20°45'01" E	– 3,290.29'	X = 1,566,022.94	Y = 257,184.72					
7	N 22°54'16" E	– 1,482.85'	X = 1,566,589.93	Y = 258,550.65					
8	N 21°46'10" E	– 1,687.56'	X = 1,567,225.85	Y = 260,117.85					
9	N 24°27'58" E	– 474.15'	X = 1,567,422.21	Y = 260,549.43					
B	N 19°44'52" E	– 437.28'	X = 1,567,555.00	Y = 260,961.00					

Note: Co-ordinates On Points 1-9 Were Established By Radyist Survey. Bearings And Distances Were Calculated Using the Lambert Grid (South Zone) System. The Route As Shown May Not Necessarily Be The Exact Location Of the Pipeline.

PROFILE
Scale: Horiz.: 1"=500'
Vert.: 1"=20'

MATERIAL SUMMARY

ITEM NO.	DESCRIPTION
1.	6.625" O.D. x .375" W.T., Gr. B, U.S. Steel Pipe
2.	6.625" O.D. x .432" W.T., Gr. B, U.S. Steel Pipe
3.	6" Cylindrical Type Anodes
~	Ctg. 'A' ~ Scotchkote #212
~	Ctg. 'B' ~ Mobilox 1004

C.O. NUMBER & DESCRIPTION	C.O. 47221
FIELD BOOKS PRELIM.	
CONST.	13922
FINAL	13911
Tally	13942

REFERENCE DRAWINGS

DRAWING NO.	TITLE
TO-F2-507F-4500-1A	PIPING DETAILS
TO-F2-507F-4500-1B	PIPING DETAILS
TO-F2-507F-4500-1B1	PIPING DETAILS
TO-F2-507F-300-1	ALIGNMENT ~ LN. No 507F-300

Tennessee Gas Pipeline Company
Division of Tenneco Inc.
Engineering Department — Houston, Texas

DRAWN BY	C.M. / D.R.B.	DATE 11-30-81
CHECKED BY	H.M.B.	DATE 1-6-82
CORRECTED BY	J.S.M.	DATE 1-8-82
APPROVED BY	H.M.M.	DATE 1-6-82
		SCALE Shown
DUE DATES	ORIGINAL	2-28-82
	LAST	2-28-84

KINDER-CATC.-EAST CAMERON BLK. 58A LINE

LINE No. 507F-4500

EAST CAMERON AREA, GULF OF MEXICO

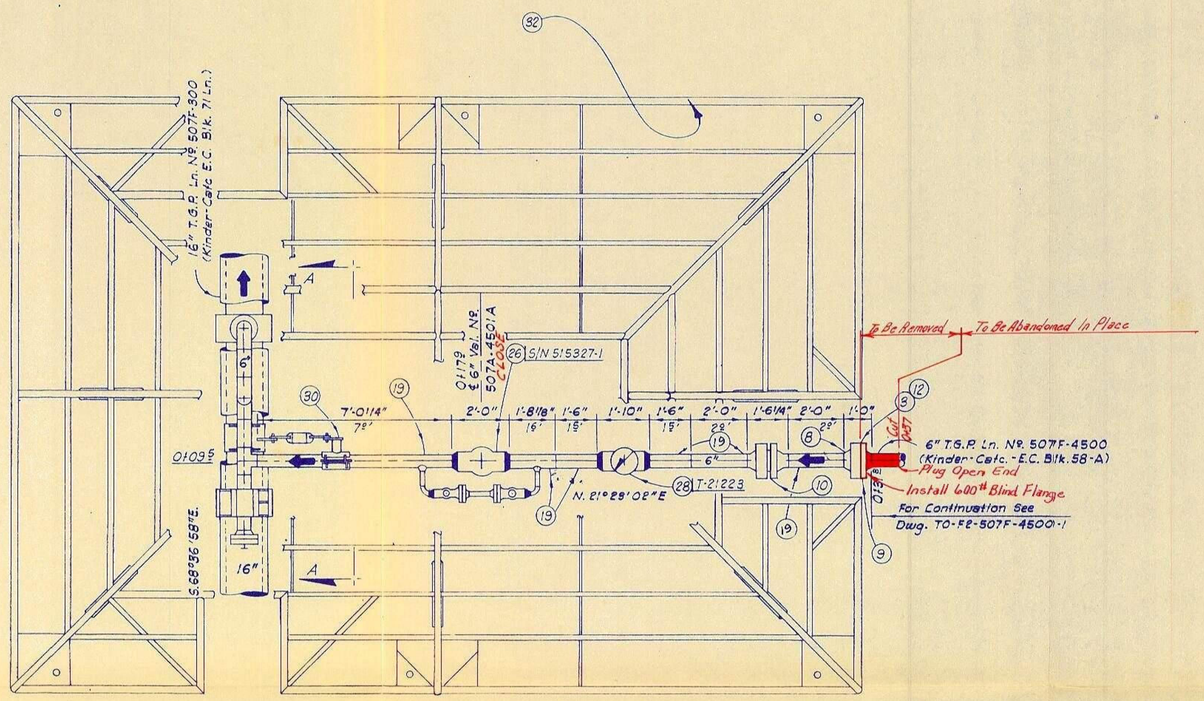
VALVE SECTION ENTIRE LINE ON THIS SHEET

APPROVED BY [signature]
ASS'T. CHIEF ENGINEER

TENNESSEE GAS PIPELINE CO.

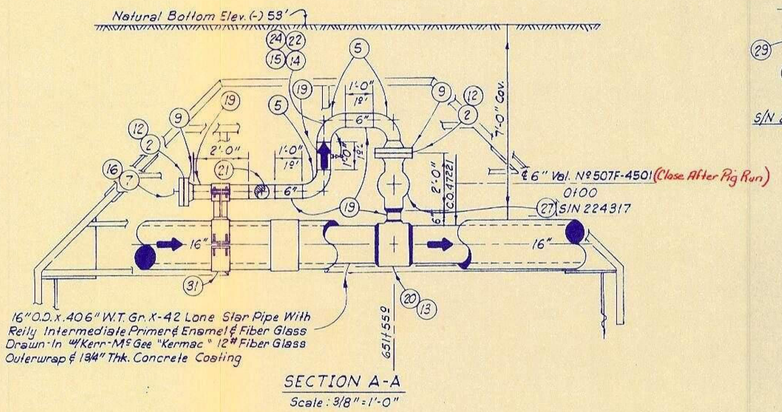
TO-F2-507F-4500-1

BEST AVAILABLE COPY



PLAN

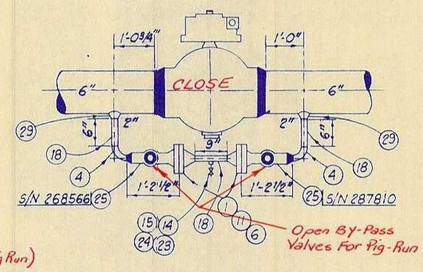
Scale: 3/8"=1'-0"



16" O.D. x .406" W.T. Gr. X-42 Lone Star Pipe With Reily Intermediate Primer & Enamel & Fiber Glass Drawn-In w/ Kenn-Mac Gee "Kenmac" 12# Fiber Glass Outerwrap & 1 3/4" Thk. Concrete Coating

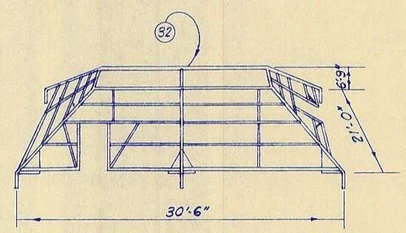
SECTION A-A

Scale: 3/8"=1'-0"



BYPASS VALVE DETAIL

Scale: None



VALVE GUARD DETAIL

Scale: None

MATERIAL LEGEND

ITEM №	DESCRIPTION
1.	Bolt, Stud, 7/8" Dia. x 6" Lg., W/2 Hex Nuts
2.	Bolt, Stud, 1 1/8" Dia. x 10" Lg., W/2 Hex Nuts
3.	Bolt, Stud, 1 1/8" Dia. x 10" Lg., W/2 Hex Nuts
4.	Ell, Welding, 2.375" O.D. x .218" W.T., Gr. B, 90° LR (05' Lg.)
5.	Ell, Welding, 6.625" O.D. x .432" W.T., Gr. B, 90° LR (15' Lg.)
6.	Flange, 2" ANSI 1500# RFWN
7.	Flange, Blind, 6" ANSI 900# RTJ, C.D. & T-1/2" NPT.
8.	Flange, Swivel Ring, 6" ANSI 900# RTJ
9.	Flange, 6" ANSI 900# RTJWN
10.	Flange-Lok, Gripper Bolt, 6" ANSI 900# (Comp.)
11.	Gasket, 2" ANSI 1500# Parker 6383 S.S. W/Viton Seal
12.	Gasket, 6" ANSI 900# Soft Iron Oval Ring R45
13.	Grease Fitting, 1/4" Straight, Alemite № 1610
14.	Nipple, Pipe, 1/2" XH x 2" Lg., TBE
15.	Plug, Hex, 1/2" ANSI 3000 P.S.I., S.S., Scrd.
16.	Plug, Pleeco, 1/2" ANSI 3000 P.S.I., F.S., Scrd.
17.	Plug, Hex, 1/4" ANSI 3000 P.S.I., F.S., Scrd.
18.	Pipe, 2.375" O.D. x .218" W.T., Gr. B
19.	Pipe, 6.625" O.D. x .432" W.T., Gr. B, U.S. Steel
20.	Saddle, Full-Encirclement, 16" x 6" Weld, Fleet-Line Part 5
21.	Tee, 6.625" O.D. x .432" W.T., Gr. B (Weld) (03' Lg.)
22.	Thread-O-Let, 6-2 1/2" x 1/2", 6000 P.S.I., F.S., NPT.
23.	Thread-O-Let, 2-1 1/4" x 1/2", 6000 P.S.I., F.S., NPT.
24.	Valve, Ball, 1" NPT., 3000 PSI. Jamesbury № HP36GT, Type 316, S.S., W/Handle.
25.	Valve, Ball, 2" ANSI 1500# (W/RF) Cameron
26.	Valve, Ball, 6" ANSI 900# (W/W) Grove
27.	Valve, Ball, 6" ANSI 900# (W/RTJ) Cameron
28.	Valve, Swing Check, 6" ANSI 900# (W/W) Tom Wheatley
29.	Weld-O-Let, 8"-6" x 2", F.S.
30.	Pipe Clamp & Brace For 6" Pipe. (Comp.)
31.	Pipe Clamp For 6" Pipe. (Comp.)
32.	Valve Guard (Comp.)

REFERENCE DRAWINGS

DRAWING NO.	TITLE	DRAWING NO.	TITLE
TO-F2-507F-4500-1	ALIGNMENT ~ LN. № 507F-4500		
TO-F2-507F-300-1	ALIGNMENT ~ LN. № 507F-300		

REVISIONS

NO.	DATE	REMARKS	REV.	CKD.	APP.

TENNECO

Tennessee Gas Pipeline Company

Division of Tenneco Inc.

Engineering Department — Houston, Texas

DRAWN BY D.R. Broussard	DATE	11-24-81
CHECKED BY H.M.B.	DATE	1-6-82
CORRECT BY RSM	DATE	1-8-82
APPROVED BY H.M.M.	DATE	1-6-82
	SCALE	Shown
SUE DATES	ORIGINAL	2-28-82
	LAST	2-28-83

PIPING DETAILS

KINDER-CATC. E.CAM BLK 58A LN.

EAST CAMERON AREA, GULF OF MEXICO

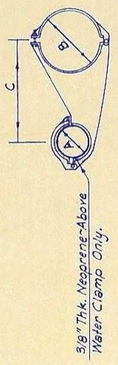
VALVE SECTION

APPROVED BY J.R. Hollowell 1-8-82 ASST. CHIEF ENGINEER

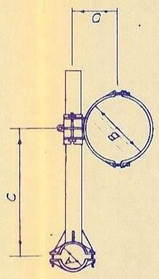
TENNESSEE GAS PIPELINE CO.

TO-F2 507F-4500-1A

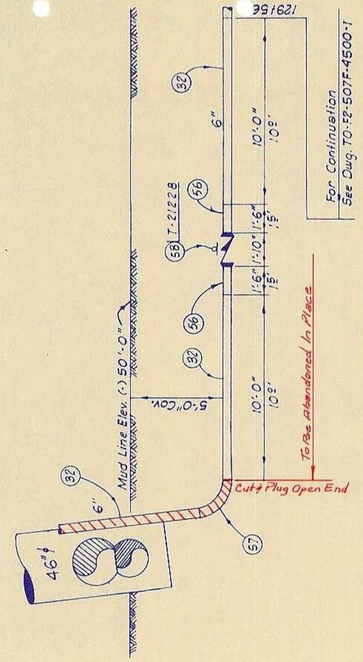
BEST AVAILABLE COPY

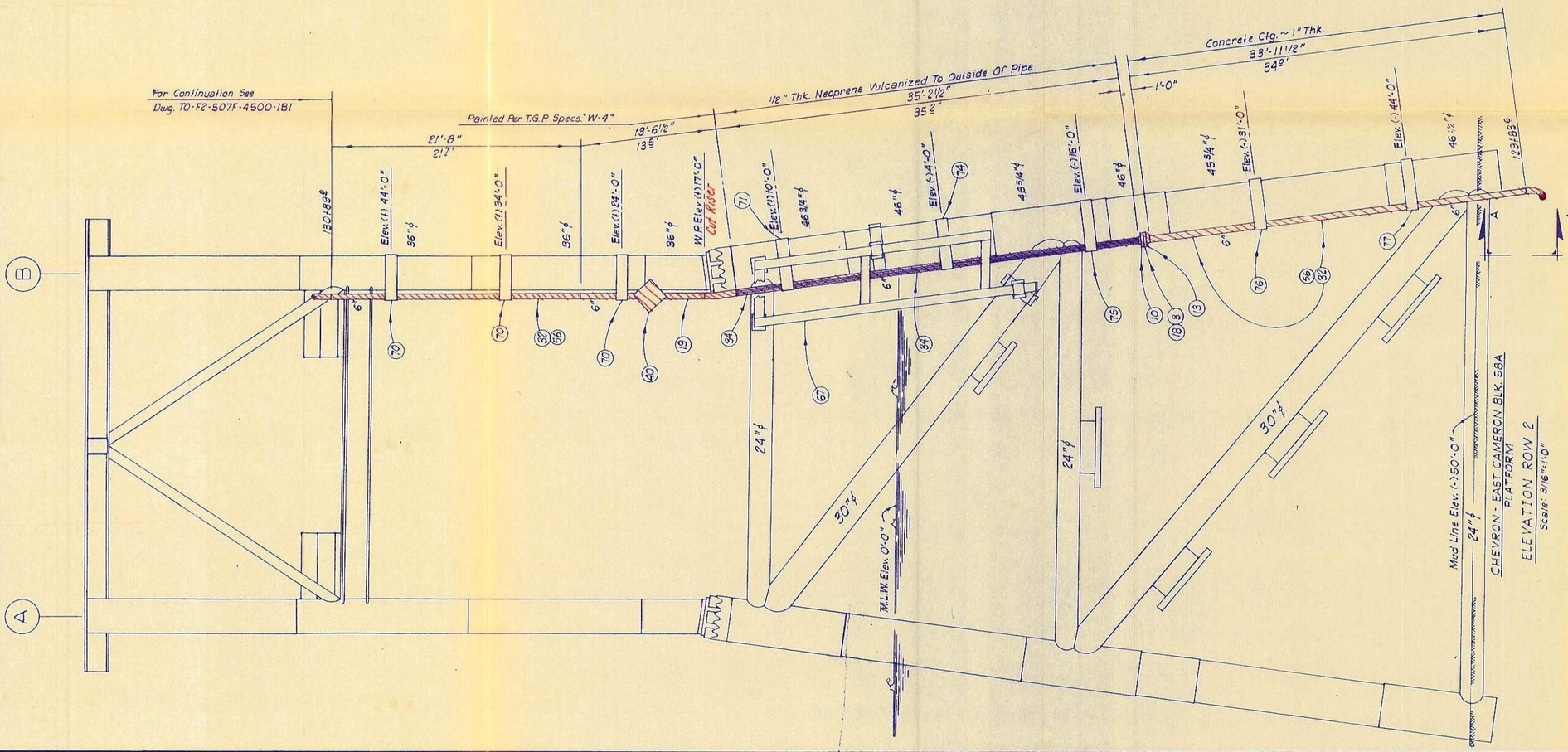


PIPE CLAMP SCHEDULE			
	ABOVE WATER		
ITEM Nº	DIMENSION		
	A	B	C
70	7 7/8"	3'-0 1/2"	3'-2 3/8"
71	8 7/8"	3'-1 1/4"	3'-2 3/8"
	BELOW WATER		
74	8 1/8"	3'-10 1/2"	3'-2 3/8"
75	8 1/8"	3'-11 1/4"	3'-2 3/8"



ADJ PIPE CLAMP SCHEDULE				
	BELOW WATER			
ITEM Nº	DIMENSION			
	A	B	C	D
76	9 1/8"	3'-10 1/4"	2'-2 1/2"	2'-3 3/4"
77	9 1/8"	3'-11"	2'-2 1/8"	2'-4 1/8"
.				





MATERIAL LEGEND

ITEM Nº	DESCRIPTION
1.	Bolt, Stud, 5/8" Dia. x 4 1/2" Lg., 4 1/2 Hex Nuts
2.	Bolt, Stud, 1" Dia. x 7" Lg., 4 1/2 Hex Nuts
3.	Bolt, Stud, 1 1/8" Dia. x 10" Lg., 4 1/2 Hex Nuts
4.	Bushing, 2" x 1/2 F.S. Scrd. Hex Hd., 6000 P.S.I.
5.	Closure, 8" ANSI 600# F.S., Hinged For Horiz. Oper. W/Bleed
6.	Ell, Weld, 6.625" O.D. x .432" W.T., Gr. B 90° LR (1 5' Lg.)
7.	Ell, Weld, 6.625" O.D. x .432" W.T., Gr. B 90° 3R (3° Lg.)
8.	Ell, Street, 1" ANSI 3000 P.S.I. 90° F.S. Scrd.
9.	Flange, Blind, 2" ANSI 600# R.T.J.
10.	Flange, Swivel Ring, 6" ANSI 900# R.T.J.
11.	Flange, 2" ANSI 600# R.T.J. W.N.
12.	Flange, 6" ANSI 600# R.T.J. W.N.
13.	Flange, 6" ANSI 900# R.T.J. W.N.
14.	Insulating Set, 2" ANSI 600# (Comp.)
15.	Insulating Set, 6" ANSI 600# (Comp.)
16.	Gasket, 2" ANSI 600# Soft Iron Oval Ring
17.	Gasket, 6" ANSI 600# Soft Iron Oval Ring
18.	Gasket, 6" ANSI 900# Soft Iron Oval Ring
19.	Bend, Pipe, 6.625" O.D. x .432" W.T., Gr. B. Youngstown, 10°02' (1.38' Lg.)
21.	Shim Block, For 6" Pipe (Comp.)
22.	Shim Block, For 8" Pipe (Comp.)
23.	Insulation Pad, For 6" Pipe
24.	Insulation Pad, For 8" Pipe
25.	Insulation, Neoprene 1/8" Thk. x 10" Wide
26.	Lug, Thomas And Betts Nº 32009
27.	Nipple, Pipe, 1" XH x 3" Lg., TBE
28.	Nipple, Pipe, 1" XH x 6" Lg., TBE
29.	Nipple, Pipe, 1" XH x 6" Lg., TOE
30.	Plug, Pleeco 1/2" ANSI 3000 P.S.I., F.S.
31.	Pipe, 2.375" O.D. x .218" W.T., Gr. B
32.	Pipe, 6.625" O.D. x .432" W.T., Gr. B U.S. Steel
33.	Pipe, 8.625" O.D. x .500" W.T., Gr. B Youngstown
34.	Pipe, 6.625" O.D. x .432" W.T., Gr. B, Neoprene Ctg. Externally; 1/2" Thk. J&L
35.	Plug, Hex, 1/2" ANSI 3000 P.S.I., S.S., Scrd.
36.	Plug, Hex, 1" ANSI 3000 P.S.I., S.S., Scrd.
37.	Thread-O-Ring, 2" XH, M.P.T. x Weld Nipple; 1500 P.S.I. (Comp.) T.D. Williamson Nº 06188600000
38.	Reducer, Concentric, Beveled, Weld, 8.625" O.D. x .406" W.T. x 6.625" O.D. x .432" W.T., Gr. B
39.	Saddle, 2" x 8", Gr. B, Std. Weld
40.	Sign
42.	Pig Indicator, For 6" x .432" W.T. Pipe, W/Visual Indicator, Kidd Mod. 2005
43.	Tee, 6.625" O.D. x .432" W.T., Gr. B, Weld (0° Lg.)
44.	Tee, Reduced Outlet, 6.625" O.D. x .432" W.T. x 2.375" O.D. x .218" W.T., Gr. B, Weld. (0° Lg.)
45.	Thread-O-Let, 6 - 2 1/2" x 1/2", 6000 P.S.I., F.S., N.P.T.
46.	Thread-O-Let, 2 1/2 - 2" x 1", 6000 P.S.I., F.S.
47.	Thread-O-Let, 10" - 3" x 1", 6000 P.S.I., F.S., N.P.T.
48.	Union, 1" ANSI, 3000 P.S.I., F.S., Scrd.
49.	Valve, Ball, 1" N.P.T., 3000 P.S.I., Jamesbury Nº HP36GT, Type 316, S.S.,
50.	Valve, Ball, 2" F.P.T., 1500 P.S.I., Full Bore, C.S., WKM Type 2F-B138-CS-03-CS,
51.	Valve, Ball, 2" ANSI 600# (W/RTJ)
52.	Valve, Ball, 6" ANSI 600# (W/RTJ) Cameron
53.	Valve, Swing Check, 6" ANSI 600# (RTJ/RTJ) Tom Wheatley.
54.	Valve, Globe, 1/2" F.P.T. x 1/2" M.P.T., 6000 P.S.I.G., AGCO Nº H1S-44Q, Type 316, S.S., W/Buna-N-O-Ring 3/16" Orifice.
55.	Ell, Weld, 2.375" x .218" W.T., Gr. B, 90° LR (0° Lg.)
56.	Pipe, 6.625" O.D. x .432" W.T. Gr. B. Youngstown
57.	Ell, Weld, 6.625" O.D. x .432" W.T., Gr. B, 86° 3R (28' Lg.)
58.	Valve, Swing Check, 6" ANSI 900, (W/W), Tom Wheatley
59.	Bend, Pipe, 6.625" O.D. x 432" W.T., Gr. B (10°02')
60.	Hanger, Clevis, For 6" Pipe, Grinnell Fig. 260
61.	Clamp, Beam, Grinnell Fig. 292
62.	Rod, Steel, 3/4" Dia., 4 1/3 Hex Nuts Ea.; Grinnell Fig. 140
63.	Insulation, Neoprene, 1/8" Thk. x 2" Wide
64.	Sign
65.	Pipe Guide For 6" Pipe
66.	Pipe Guide For 8" Pipe
67.	Riser Guard (Comp.)
68.	Support, Shim Block, For 6" Pipe
69.	Support, Shim Block, For 8" Pipe
70.	Riser Clamp, For 6" Pipe
71.	Riser Clamp, For 6" Pipe
72.	Pipe Clamp And Brace, For 2" Pipe
73.	Beam, W8" x 17 Lb., HR Steel, W-Shape
74.	Riser Clamp, For 6" Pipe
75.	Riser Clamp, For 6" Pipe
76.	Riser Clamp, For 6" Pipe
77.	Riser Clamp, For 6" Pipe

* Hatched Piping To Be Removed With Platform

REFERENCE DRAWINGS			
DRAWING NO.	TITLE	DRAWING NO.	TITLE
TO-F2-507F-4500-1	ALIGNMENT ~ LN. Nº 507F-4500		
TO-F2-507F-4500-1B1	PIPING DETAILS ~ CELLAR DECK & LAUNCHER		

REVISIONS					
NO.	DATE	REMARKS	REV.	CKD.	APP.

TENNECO

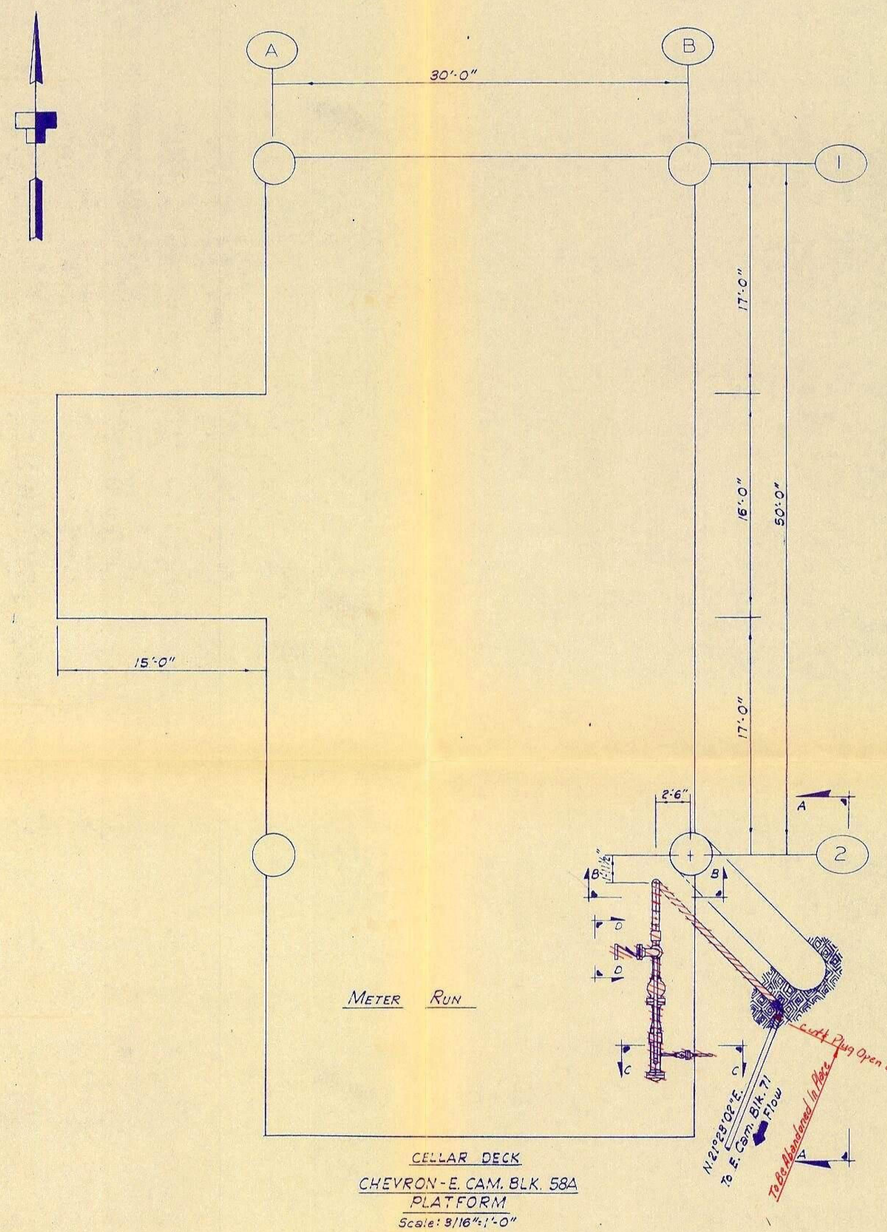
Tennessee Gas Pipeline Company
Division of Tenneco Inc.
Engineering Department — **Houston, Texas**

DRAWN BY	D.R. Broussard	DATE 12-3-81
CHECKED BY	H.M.B.	DATE 1-6-82
CORRECT BY	RSM	DATE 1-8-82
APPROVED BY	H.M.M.	DATE 1-6-82
		SCALE Shown
TIME DATES	ORIGINAL	2-28-82
	LAST	2-28-83

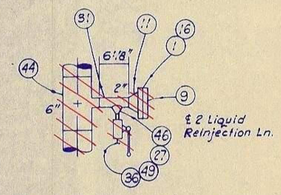
PIPING DETAILS
KINDER-CATC E.CAM. BLK. 58A LN.
EAST CAMERON AREA, GULF OF MEXICO
VALVE SECTION

APPROVED BY J.P. Kallaway 1-8-82
ASST. CHIEF ENGINEER
TENNESSEE GAS PIPELINE CO.
TO-F2 507F-4500-1B

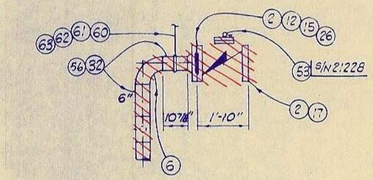
BEST AVAILABLE COPY



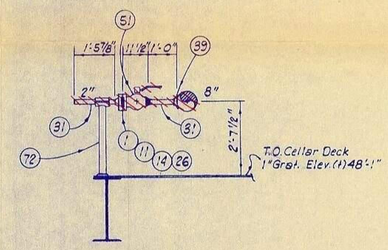
CELLAR DECK
CHEVRON-E. CAM. BLK. 58A
PLATFORM
Scale: 3/16"=1'-0"



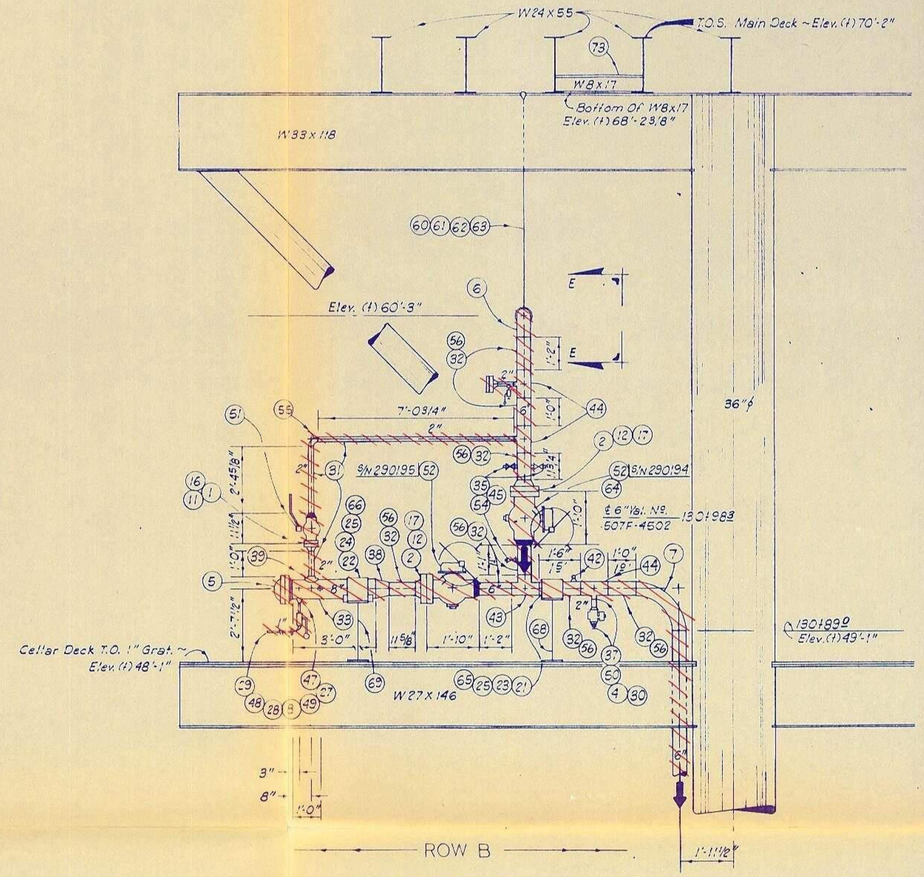
SECTION D-D
Scale: 3/4"=1'-0"



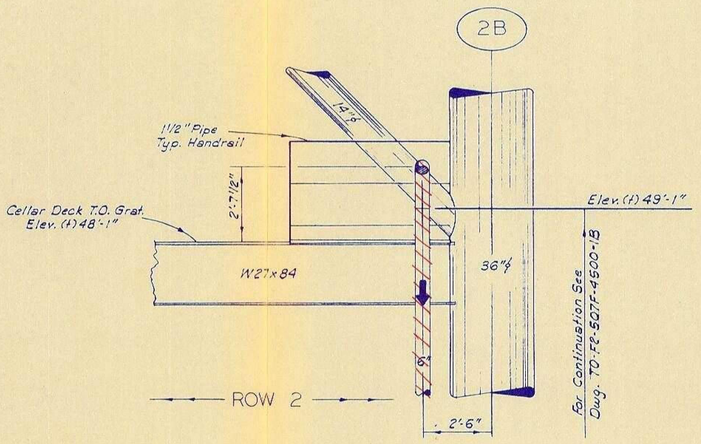
SECTION E-E
Scale: 3/8"=1'-0"



SECTION C-C
Scale: 3/8"=1'-0"



SECTION A-A
Scale: 3/8"=1'-0"



SECTION B-B
Scale: 3/8"=1'-0"

*HATCHED PIPING TO BE REMOVED WITH PLATFORM

REFERENCE DRAWINGS			
DRAWING NO.	TITLE	DRAWING NO.	TITLE
TO-F2-507F-4500-1B	PIPING DETAILS ~ 58A PLAT. & MAT'L		

REVISIONS					
NO.	DATE	REMARKS	REV.	CKD.	APP.

TENNECO

Tennessee Gas Pipeline Company
Division of Tenneco Inc.
Engineering Department — **Houston, Texas**

DRAWN BY D.R. Broussard	DATE 12-9-81	
CHECKED BY H.M.B.	DATE 1-6-82	
CORRECT BY RSM	DATE 1-8-82	
APPROVED BY HMM	DATE 1-6-82	
	SCALE Shown	
ISSUE DATES	ORIGINAL 2-28-82	
	LAST 2-28-83	

PIPING DETAILS
KINDER C.A.T.C.-E. CAM. BLK. 58A LN.
EAST CAMERON AREA, GULF OF MEXICO
VALVE SECTION

APPROVED BY J.P. Hellmuth
1.8.82 ASST. CHIEF ENGINEER
TENNESSEE GAS PIPELINE CO.
TO-F2 507F-4500-1B1

PIPELINE INSPECTION CHECK LIST

Date of Inspection: 6-12-90 Company Contact: Paul

Lessee/Operator: _____ Contractor: _____

Barge ID

MMS Inspector: Williams Barge or Platform: EC 58 'A'

Location

Segment No.: G-4150 DOT/DOI: DOT

From: EC 58 'A' To: _____

PIPELINE CONSTRUCTION/SPECIFICATIONS

Size: 6 5/8 Wall Thickness: _____

Grade: _____ Anodes: _____

Seamless: _____ Type: _____ Weight: _____

Coating: _____ No.: _____ Spacing: _____

Pipeline Crossing & Clearance: _____ Burial Depth: _____

Existing Pipeline(s) Bouyed: _____ Valves/Taps Cover: _____

Length: _____

HIP DATA

(Medium) Water or Product _____

Duration Time _____

Pressure (PSI) _____

MINIMUM RATING OF VALVES, FLANGES, FITTINGS AND PRESSURE DATA

Rating: Ansi 600 Approved MAOP: 1232

Service: Gas Pipeline Flowing Pressure: 600

Source: Separator

	Range	Setting
IF Well(s), SITP: [redacted]		
High Sensor(s):	875	960
Low Sensor(s):	540	486
PSV:		

Is low sensor installed where it could not be isolated? _____

RISER PROTECTION

Coating: _____ Bumper Guard: ✓ Splash Guard: _____

Water Depth: _____

OPTION · GOM OCS REGION
SN _____

UNITED STATES DEPARTMENT OF THE INTERIOR
MINERALS MANAGEMENT SERVICE
GULF OF MEXICO OCS REGION
PIPELINE INSPECTION FORM

OIS ID PPLFORM
DATE 03/27/90
PAGE 1

DATE OF THIS INSP· __/__/__

••• PIPELINE MASTER •••

	SEGMNT NO	ROW NO	OPERATOR NAME	APPROVAL CODE	AUTHORITY CODE	PIPE SIZE	PRODUCT CODE
NEW	_____	_____	_____	-	-	_____	___

	ORIGINATION ID	AREA	BLOCK	LEASE	DESTINATION ID	AREA	BLOCK	LEASE	PIPE LENGTH	APPROVAL DATE
NEW	_____	__	_____	_____	_____	__	_____	_____	_____	__/__/__

	INITIAL TEST DATE	CATH CODE	CATH LIFE	DIRECT CODE	SYSTEM DESIG	MIN DEPTH	MAX DEPTH	BURIED DESIG	RECEIV PIPE SEGMENT	RECEIV PIPE PRESSURE	MAX ALLOW PRESSURE	DEPART CODE	STATUS
NEW	__/__/__	-	__	-	___	____	____	-	_____	____	____	___	____

OPTION : GOM OCS REGION

UNITED STATES DEPARTMENT OF THE INTERIOR
MINERALS MANAGEMENT SERVICE
GULF OF MEXICO OCS REGION
PIPELINE INSPECTION FORM

OIS ID PPLFORM
DATE 03/27/90
PAGE. 2

DATE OF THIS INSP· __/__/__

••• DEPARTURES APPROVED •••

LINE NO	DATE ADDED	PINC NO	DATE ISSUED	COMMENTS
__	__/__/__	____	__/__/__	_____
__	__/__/__	____	__/__/__	_____
__	__/__/__	____	__/__/__	_____
__	__/__/__	____	__/__/__	_____
__	__/__/__	____	__/__/__	_____
__	__/__/__	____	__/__/__	_____

OPTION : GOM OCS REGION

UNITED STATES DEPARTMENT OF THE INTERIOR
MINERALS MANAGEMENT SERVICE
GULF OF MEXICO OCS REGION
PIPELINE INSPECTION FORM

OIS ID PPLFORM
DATE. 03/27/90
PAGE 3

DATE OF THIS INSP: __/__/__

••• INSPECTION SUMMARY •••

	TIME SUMMARY LAST	TIME SUMMARY CURRENT (30)	TYPE INSPECTION LAST	TYPE INSPECTION CURRENT (51)	INSPECTORS CODE LAST	INSPECTORS CODE CURRENT (57)	INSPECTORS NAME SIGNATURE
INSPECTION	__.__ HR	__.__ HR	_		___		_____
WAITING	__.__ HR	__.__ HR			___		_____
TRAVEL	__.__ HR	__.__ HR	DATE LAST INSP		___		_____
TOTAL	__.__ HR	__.__ HR	__/__/__		___		_____

(10min)

••• ENFORCEMENT ACTION •••

LINE NO	INC NO.	ITEM NAME	ENF ACT	SHUT-IN DATE MO-DA-YR	SHUT-IN TIME HR	REOPENED DATE MO-DA-YR	REOPENED TIME HR	COMMENTS	LOST OIL	LOST GAS	AVG OIL	AVG GAS
__	___	_____	-	__/__/__	__.__	__/__/__	__.__	_____	___	___	___	___
__	___	_____	-	__/__/__	__.__	__/__/__	__.__	_____	___	___	___	___
__	___	_____	-	__/__/__	__.__	__/__/__	__.__	_____	___	___	___	___
__	___	_____	-	__/__/__	__.__	__/__/__	__.__	_____	___	___	___	___
__	___	_____	-	__/__/__	__.__	__/__/__	__.__	_____	___	___	___	___

••• REMARKS •••

LINE

SN5493

United States Department of the Interior

MINERALS MANAGEMENT SERVICE
GULF OF MEXICO OCS REGION
1201 ELMWOOD PARK BOULEVARD
NEW ORLEANS, LOUISIANA 70123-2394

In Reply Refer To: LE-3-1
N. O. Misc. No. 014

November 30, 1989

$4150

ACTION

Tennessee Gas Pipeline Company — Right-of-Way

MERGER AND CHANGE OF NAME RECOGNIZED

On October 17, 1989, there was filed in this office for approval evidence of merger of Tenneco Merger Company, an unqualified corporation, with and into Tenneco Inc., a Delaware corporation (N. O. Misc. No. 014), and, as of the date of the merger, Tenneco Inc. changed its name to Tennessee Gas Pipeline Company. The effective date of the merger and simultaneous change of name is December 8, 1987. The name of the surviving corporation is Tennessee Gas Pipeline Company and the qualification number assigned thereto is New Orleans Miscellaneous File Number 014.

In connection with the merger and change of name, the following evidence was received:

1. Agreement and Plan of Merger of Tenneco Merger Company with and into Tenneco Inc. under the name of Tennessee Gas Pipeline Company, duly certified by the Secretary of State of the State of Delaware on December 8, 1987, with additional certification by James Gaughan, Assistant Secretary of Tennessee Gas Pipeline Company, on June 7, 1989;

2. Certificate reflecting that Tennessee Gas Pipeline Company is duly incorporated under the laws of the State of Delaware and is in good standing, executed by the Secretary of State of the State of Delaware, on November 3, 1988;

3. Certificate reflecting that Tennesseee Gas Pipeline Company is incorporated under the laws of the State of Delaware and that it is authorized to hold pipeline rights of way and mineral leases on the Outer Continental Shelf, duly executed by Vincent F. Ewell, Jr., Assistant Secretary of Tennessee Gas Pipeline Company, on June 7, 1989;

4. Certificate listing the elected or appointed and now acting officers of Tennessee Gas Pipeline Company, duly executed by James Gaughan, Assistant Secretary of Tennessee Gas Pipeline Company, on June 7, 1989;

5. Copy of resolutions adopted at a meeting of the Board of Directors of Tennessee Gas Pipeline Company held on May 9, 1989, duly certified by James Gaughan, Assistant Secretary of Tennessee Gas Pipeline Company, on June 1, 1989;

6. Bond Rider to be attached to Outer Continental Shelf Right of Way Bond Number 61 S 33110-15-79 BCA changing the name of the principal to Tennessee Gas Pipeline Company, effective December 8, 1987;

7. Listing of the pipeline rights-of-way to be affected by the merger and change of name.

Since the transfer and vesting of property rights in the surviving corporation have been effected by State statutes by operation of law and not by individual conveyances, the merger and change of name are hereby approved insofar as they affect pipeline rights-of-way under 30 CFR 250. The change in ownership as to the pipeline rights-of-way listed below is recognized and the records so noted:

OCS-G NO.	OCS-G NO.	OCS-G NO.	OCS-G NO.	OCS-G NO.
0643	1345	1692	1854	2121-E
0643-A	1376	1702	1854-A	2123
0643-B	1382	1702-B	1854-B	2214
0643-C	1382-A	1702-C	1854-C	2214-A
0643-D	1383	1702-D	1854-E	2975
0649	1434	1702-E	1854-F	2975-A
0875	1434-A	1702-F	1854-G	3221
0877	1434-G	1702-H	1854-H	3221-A
0885	1434-H	1702-I	1854-I	3348
0886	1434-J	1702-K	1907-W	3349
0887	1434-K	1702-L	1950-J	3350
0887-A	1461	1702-M	1950-L	3355
0889	1464	1702-O	1992	3357
0891	1464-A	1702-P	2121	3358
0891-A	1683	1702-Q	2121-A	3360
0892	1684	1702-R	2121-B	3437
0895	1687-S	1702-S	2121-C	3449
1320	1687-T	1702-T	2121-D	3451

OCS-G NO.	OCS-G NO.	OCS-G NO.	OCS-G NO.	OCS-G NO.
3455	4028	4290	4855	7109
3613	4030	4291	4977	7535
3614	4040	4306	5135	7536
3626	4043	4308	5136	7552
3633	4061	4309	5137	7554
3638	4150	4340	5141	7575
3644	4154	4341	5152	7576
3648	4158	4373	5157	7587
3652	4160	4374	5232	8046
3828	4161	4526	5253	8047
3837	4169	4603	5259	8050
3845	4171	4605	5933	8056
3848	4173	4608	5937	8057
3851	4276	4609	6381	8527
3852	4282	4613	6546	8617
3855	4283	4641	7096	10396
3861	4284	4644	7104	11165
3862	4287	4686	7107	11174

J. Rogers Pearcy
Regional Director

cc: Associates
Case Files
Qualification File (N. O. Misc. No. 014)

United States Department of the Interior

BUREAU OF LAND MANAGEMENT

NEW ORLEANS OUTER CONTINENTAL SHELF OFFICE
HALE BOGGS FEDERAL BUILDING
500 CAMP STREET–SUITE 841
NEW ORLEANS, LA 70130

IN REPLY REFER TO
OCS-G 4150

SN 5493

East Cameron Area

August 7, 1981

ACTION

Tenneco Inc.	:	Right of Way for Pipe Line
	:	
	:	Date of Permit: 10/9/79
	:	
	:	Decision Requesting Proof of Construction Dated:
	:	
	:	Proof of Construction Received: 5/28/81

Proof of Construction Accepted

The above-captioned grantee has submitted the evidence required by the law and regulations 43 CFR 3340.3(a). The proof of construction is hereby accepted and approved with minor deviations.

John L. Rankin
Manager

cc: U. S. Geological Survey
(w/dwg. and reports)

OKON PWQ A.A.
8-12-81

Tennessee Gas Pipeline
Division of Tenneco Inc.

P.O. Drawer 53388
Lafayette, Louisiana 70505
(318) 233-7802

May 27, 1981

Mr. John L. Ranking, Manager
United States Department of The Interior
Bureau of Land Management
Hale Boggs Federal Bldg.
500 Camp Street, Suite 841
New Orleans, LA 70130

Re: Proof of Construction
Pipeline Right of Way
OCS-G 4150
East Cameron Area
East Cameron Blk. 58A Line

Dear Mr. Rankin:

On September 28, 1979, application for pipeline right of way was approved and permit issued for the construction of a six (6") inch natural gas pipeline in East Cameron Area, Gulf of Mexico, Louisiana.

In accordance with regulations 43 CFR 3340.3, we attach in triplicate, the As-Constructed Drawing TO-F507F-4500-1, showing the deviation from the right of way as originally planned and submitted, along with duplicate copies of the hydrostatic test data.

If there is any additional information needed pertaining to this matter, please advise.

Yours very truly,

R. S. Perot
Assistant Division
Right of Way Supervisor

keo

c R. L. Sanderson
L. J. Broussard
J. B. Inglis
H. E. Fisher
R. G. Robertson
George Benoit
F. J. Millette, Jr.
ROW File

TGP (COMPANY)

823 RR 507F-4500

PIPE LINE TEST

NOTE SEE PROCEDURES TGT 6-129 FOR INSTRUCTIONS

C.O. NO.	DISTRICT	LINE NO	SPREAD	SECTION	DATE
47221	823	507F-4500		III	9/28/80

DRAWING NO.	LOCATION	SECTION TESTED	FOOTAGE
TE-F2-507F-4500-1	FROM MLV 507F-4501 TO MLV 507F-4500	FROM STA. 0+30± TO STA 130+58±	13,028.1

NOMINAL PIPE	SIZE O.D.	W.T.	GRADE	MFR.
	6.625 IN	.3758.432 IN	B	U.S. STEEL

100% S.M.Y.S. PRESSURE	M.A.O.P.	PIPELINE CONTRACTOR
3962 PSIG	PSIG	INGRAM MARINE CONSTRUCTORS, Inc

HYDROSTATIC TEST CONTRACTOR	PROJECT MANAGER
CSI HYDROSTATIC TESTERS, Inc.	FRANK JORDAN - BARGE CAPTAIN

COMPANY PERSONNEL INVOLVED

FRANK G HARRISON - PTY. CHF., JAMES ADKINS - INSP, WILLIAM BARRY

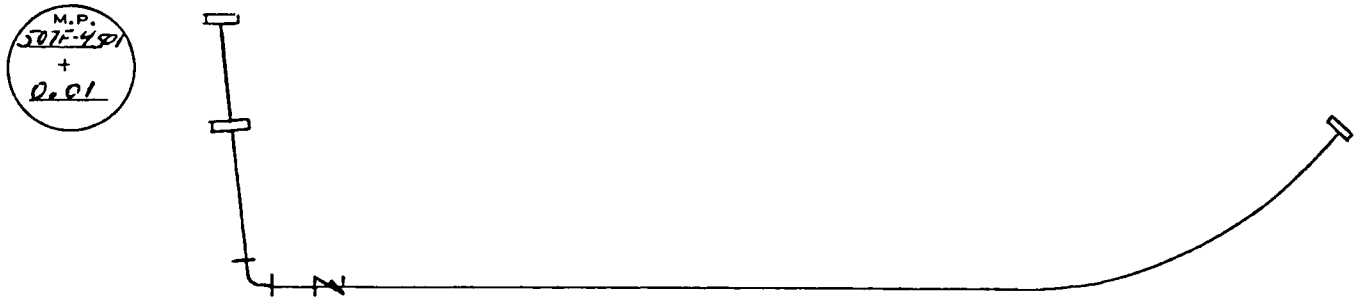
TEST MEDIUM (WATER, GAS AIR, OTHER)

SEA WATER

	END OF TEST SECTION	PRESSURE POINT	HIGH ELEVATION	LOW ELEVATION	END OF TEST SECTION
MAP PLUS	130+58 5	130+58 5	130+58 5	4+00	0+30 4
ELEVATION (FEET)	(+) 22.1 FT.	(+) 22.1 FT.	(+) 22.1 FT	(−) 58 FT.	(+) 15 FT.
TEST PRESSURE (PSI)	2160	2160	2160	2170	2163
% S M Y S	54.5	54.5	54.5	55.8	54.6

TEST SKETCH (ATTACH ADDITIONAL SKETCH SHEET IF NECESSARY) → FLOW TEST SECTION NO III

BEST AVAILABLE COPY



USEFUL CONVERSION FACTORS	WATER SOURCE	MILE POST	WATER SOURCE TEMPERATURE
• 1 FOOT OF WATER = 433 PSI • 1 PSI = 2.31 FEET OF WATER	GULF OF MEXICO	507F-4501+0.01	87°

DEVIATION DATA (OBSERVED AT PRESSURE PT)		PRESSURE		
	INITIAL DEVIATION	PSIG	% S M Y.S.	
	FINAL DEVIATION	PRESSURE PSIG	% S.M.Y.S.	DEVIATION PSI

FAILURE DATA (OBSERVED AT FAILURE PT)	DATE	TIME A M P M.	MAP STATION	ELEVATION	FAILURE PRESSURE PSIG	% S M Y.S.
	DESCRIPTION (ATTACH SKETCH OR PHOTO)		REPAIRS MADE (USE BACK IF NEEDED)			

☒ ALL TIE-IN WELDS WERE NONDESTRUCTIVELY TESTED BY HOUSTON INSP.

METHOD SOURCE X-RAY (GAMMA RAY)

ELEVATION DATA DERIVED FROM PROFILE SHEET TE-F2-507F-4500-1C OR U S G S QUAD SHEET

TEST REJECTED	TEST ACCEPTED	DATE
NOTE SEE ABOVE FAILURE DATA	TEST INSPECTOR SIGNATURE Grant D. Harrison	9/29/80
	DISTRICT SIGNATURE S. E. Autrey	10/15/80
SIGNATURE	DIVISION SIGNATURE Rene G. Richardson	10-21-80
DATE	AGENCY SIGNATURE	

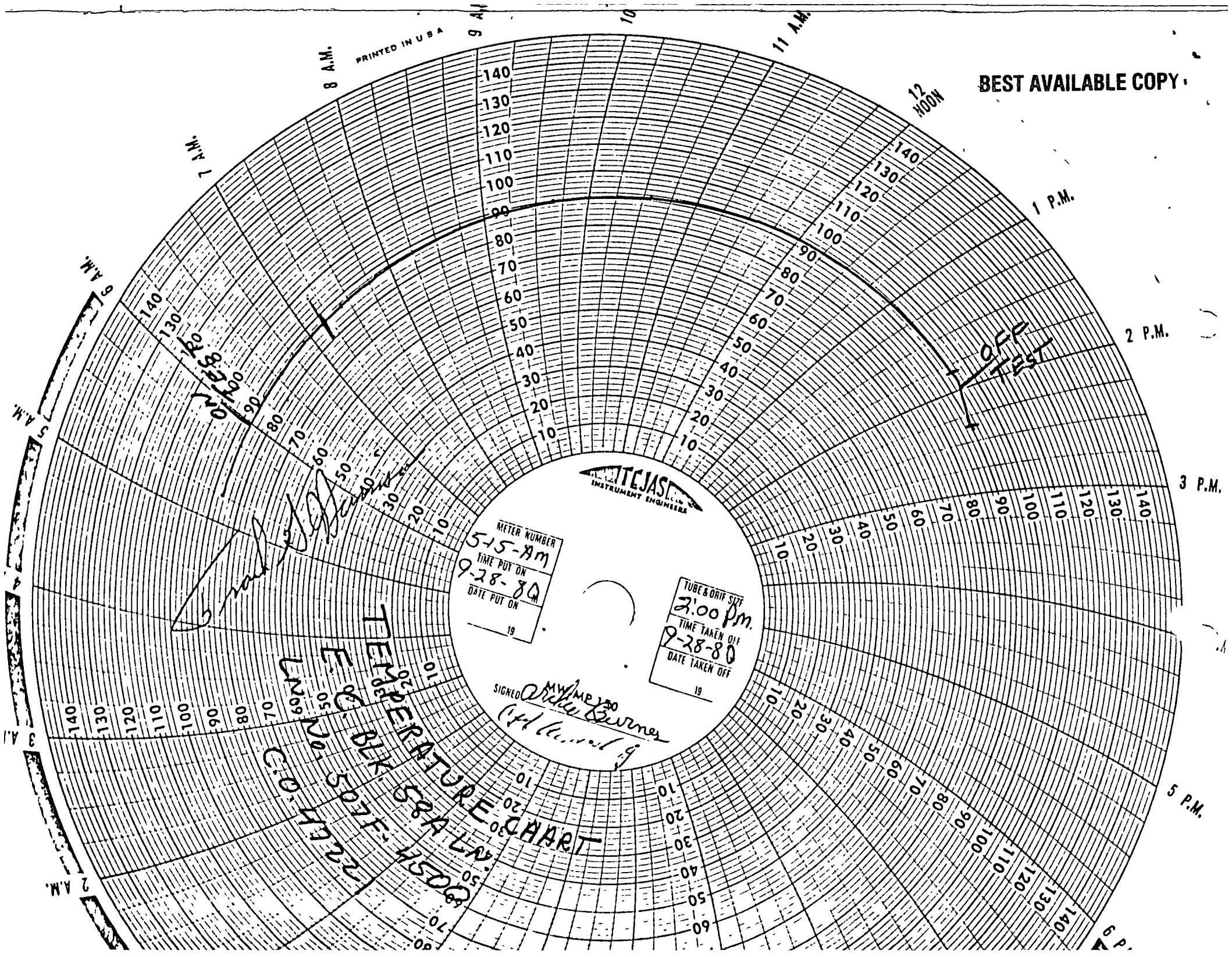
TGT 4307 3/80

TABLE OF TEST PRESSURES

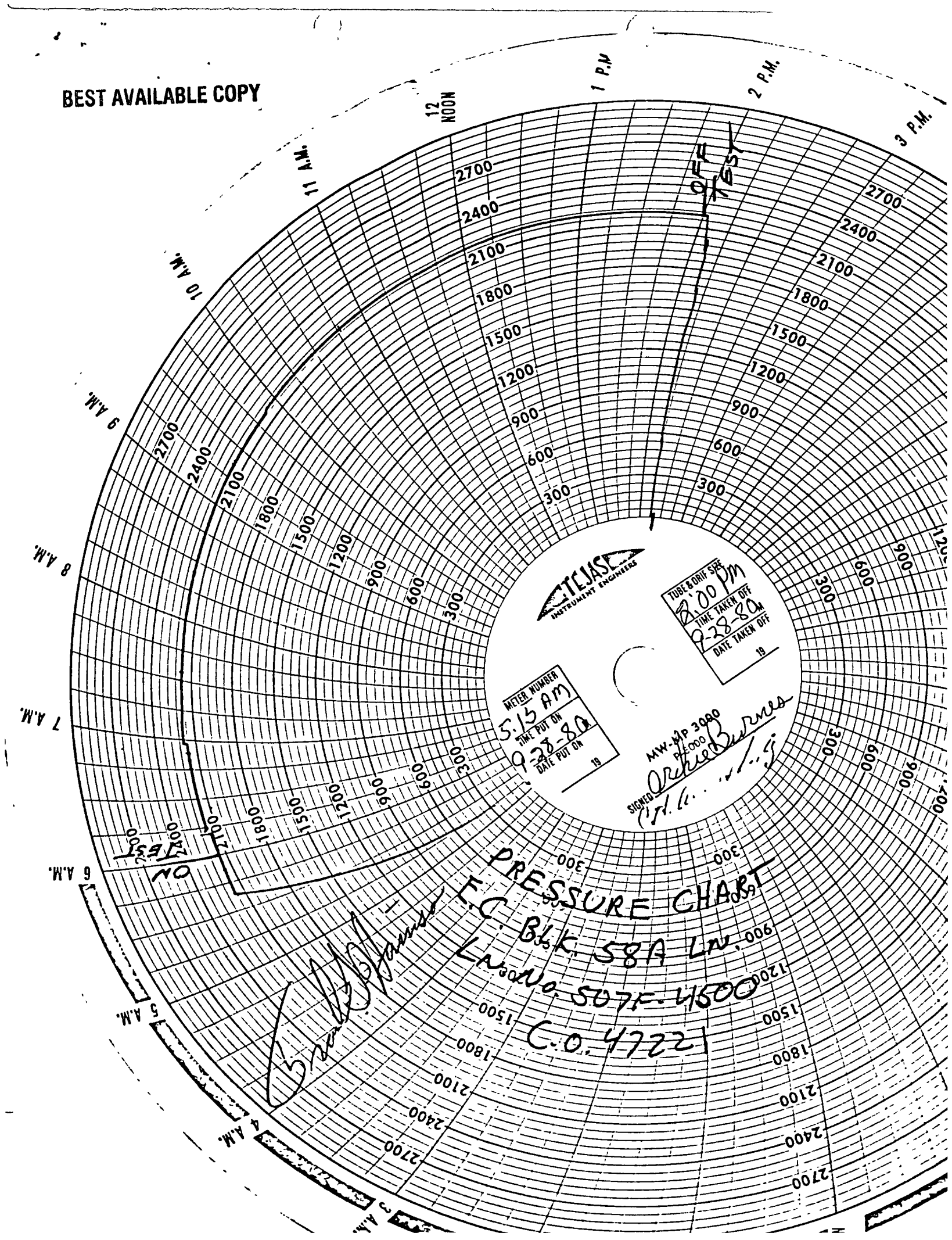
DATE	TIME	DEAD WEIGHT	TEMPERATURE		REMARKS (ON TEST, WEATHER, BLEED OFF, OFF TEST, NO OF STROKES FOR REPRESSURE, ETC)
			TEST WATER	AMBIENT	
9/24/80	0540	2174	87°		STARTED PACKING 4/400 PSI
	0555	2171			ON TEST
	0610	2170			
	0625	2165			
	0640	2160			
	0655	2160			
	0658	2182			REPRESSURED
	0715	2175			BLEED-OFF
	0730	2170			
	0745	2170			
	0800	2168			
	0830	2166	88°		
	0900	2166			
	0930	2165	90°		
	0950	2172			REPRESSURE
	1000	2172			
	1030	2170			
	1100	2170			
	1130	2170			
	1200	2168			
	1230	2168			
	1300	2165	90°		
	1330	2163			
	1400	2161			OFF TEST

COMMENTS

	MAKE	S/N
DEADWEIGHT TESTER	CHANDLER	7458
PRESSURE RECORDER	BARTON	242A-12376
TEMPERATURE RECORDER	BARTON	265-4517



BEST AVAILABLE COPY



TGP (COMPANY)

10/21/80 RR 507F4506

PIPE LINE TEST

NOTE SEE PROCEDURES TGT 6-129 FOR INSTRUCTIONS

C.O. NO.	DISTRICT	LINE NO	SPREAD	SECTION	DATE
472721	823	507F-4500		II	8/9/80

DRAWING NO.	LOCATION FROM MLV	TO MLV	SECTION TESTED FROM STA.	TO STA	FOOTAGE
TE-F2-507-4500-1B					161'

NOMINAL PIPE	SIZE O.D.	W T.	GRADE	MFR.
	6.625 IN.	.432 IN.	B	U.S. STEEL

100% S M Y.S. PRESSURE	M A.O.P.	PIPELINE CONTRACTOR
4564 PSIG	PSIG	INGRAM MARINE CONSTRUCTORS, INC.

HYDROSTATIC TEST CONTRACTOR	PROJECT MANAGER
C.S.I	JAMES DUNN

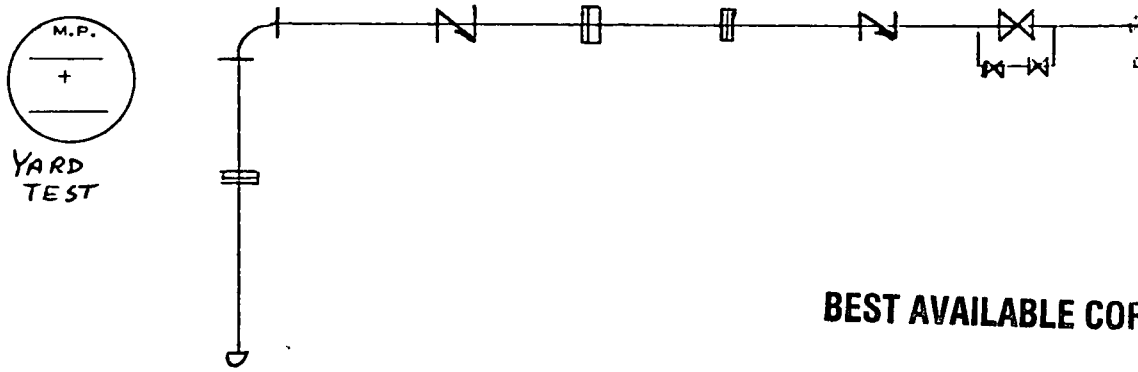
COMPANY PERSONNEL INVOLVED: RICHARD GROVE

TEST MEDIUM (WATER, GAS, AIR, OTHER): WATER

	END OF TEST SECTION	PRESSURE POINT	HIGH ELEVATION	LOW ELEVATION	END OF TEST SECTION
MAP PLUS		YARD TEST OF FABRICATION			
ELEVATION (FEET)					
TEST PRESSURE (PSI)	2160	2160	2160	2160	2160
% S M Y S	47.3	47.3	47.3	47.3	47.3

TEST SKETCH (ATTACH ADDITIONAL SKETCH SHEET IF NECESSARY) → FLOW

TEST SECTION NO II



USEFUL CONVERSION FACTORS
- 1 FOOT OF WATER = .433 PSI
- 1 PSI = 2.31 FEET OF WATER

WATER SOURCE	MILE POST	WATER SOURCE TEMPERATJRE
CITY (ABBEVILLE)		90°

DEVIATION DATA (OBSERVED AT PRESSURE PT)

	PRESSURE		
INITIAL DEVIATION	PSIG	% S M Y S	
FINAL DEVIATION	PSIG	% S M.Y.S.	DEVIATION PSI

FAILURE DATA (OBSERVED AT FAILURE PT)

DATE	TIME A M / P M	MAP STATION	ELEVATION	FAILURE PRESSURE PSIG	% S M Y.S.

DESCRIPTION (ATTACH SKETCH OR PHOTO)

REPAIRS MADE (USE BACK IF NEEDED)

☒ ALL TIE-IN WELDS WERE NONDESTRUCTIVELY TESTED
METHOD X-RAY

BY ASSOCIATED

ELEVATION DATA DERIVED FROM PROFILE SHEET TE- OR U S G S QUAD SHEET

TEST REJECTED	TEST ACCEPTED	DATE
NOTE SEE ABOVE FAILURE DATA	TEST INSPECTOR SIGNATURE P. L. Jones	8/9/80
SIGNATURE	DISTRICT SIGNATURE S. B. Chitty	10/15/80
DATE	DIVISION SIGNATURE Kenneth Littleton	10-21-80
	AGENCY SIGNATURE	

TGT 4207 3/80

TABLE OF TEST PRESSURES

DATE	TIME	DEAD WEIGHT	TEMPERATURE (°F) TEST WATER	TEMPERATURE (°F) AMBIENT	REMARKS (ON TEST, WEATHER, BLEED OFF, OFF TEST, NO OF STROKES FOR REPRESSURE, ETC)
8/9/80	1207	0			PRESSURE UP
	1212	2166			
	1219	2172			BLOW DOWN - STEM LEAKING
	1231	90			PRESSURE UP
	1235	2168			
	1238	2174			STEM FLANGE BACK FIO LEAKING
	0809	0			PRESSURE UP
	1:12	2154			CHECK LEAKS
	1 25				" "
	130	2163	86°	97°	ON TEST
	1:35	2175-2160			BLEED OFF
	1:38	2175-2162			" "
	1:41	2173-2162			" "
	1:45	2162			CLOUDY
	1:50	2175-2165			BLEED OFF
	1:55	2160-2172			PRESSURE UP - HARD RAIN
	1:58	2160-2175			" "
	1:59	2160-2175			" "
	2:00	2160-2175	93°	82°	" "
	2:01	2160-2175			" "
	2:02	"			" "
	2:03	"			" "
	2:05	2162-2173			" "
	2:06	2160-2175			BLEED OFF
	2:12	2160-2175			PRESSURE UP
	2:16	"			" "
	2:19	2175-2165			BLEED OFF
	2:27	2160-2175			PRESSURE UP
	2:37	2160-2172	88°	81°	" "
	2:45	2170	85°	89°	SUNNY
	2:52	2175-2168			BLEED OFF
	2:58	2175-2166			" "
	3:00	2170	93°	88°	" "
	3:01	2175-2160			" "
	3:08	2175-2160			" "
	3:12	2175-2166			" "
	3:16	2175-2170			" "
	3:19	2175-2165			" "
	3:25	2175-2166	96°	90°	" "
	3:37	2175-2160			" "
	3:55	2175-2166	95°	93°	" "
	4:01	2175-2166			" "
	4:07	2175-2162			" "
	4:14	2175-2162			" "

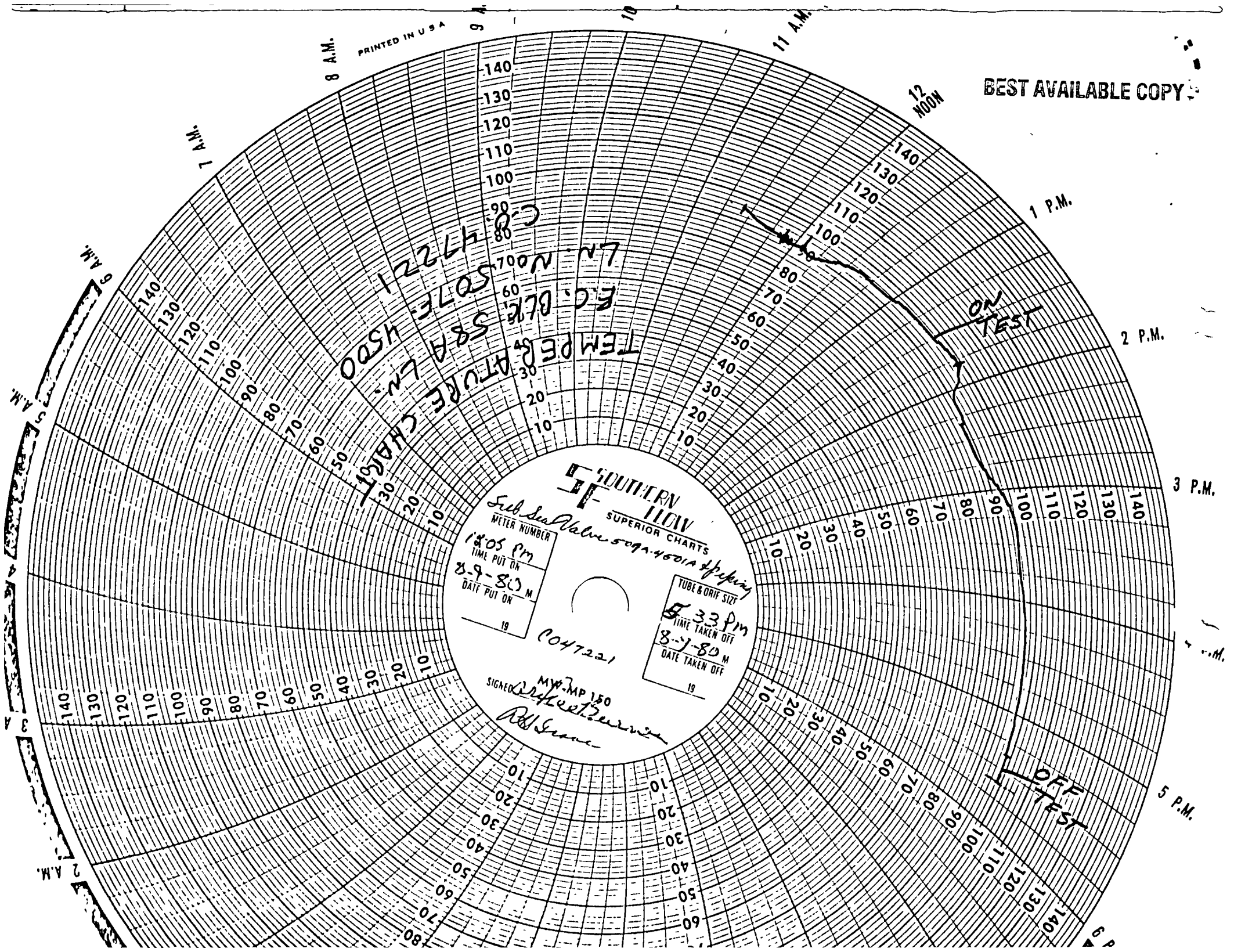
COMMENTS

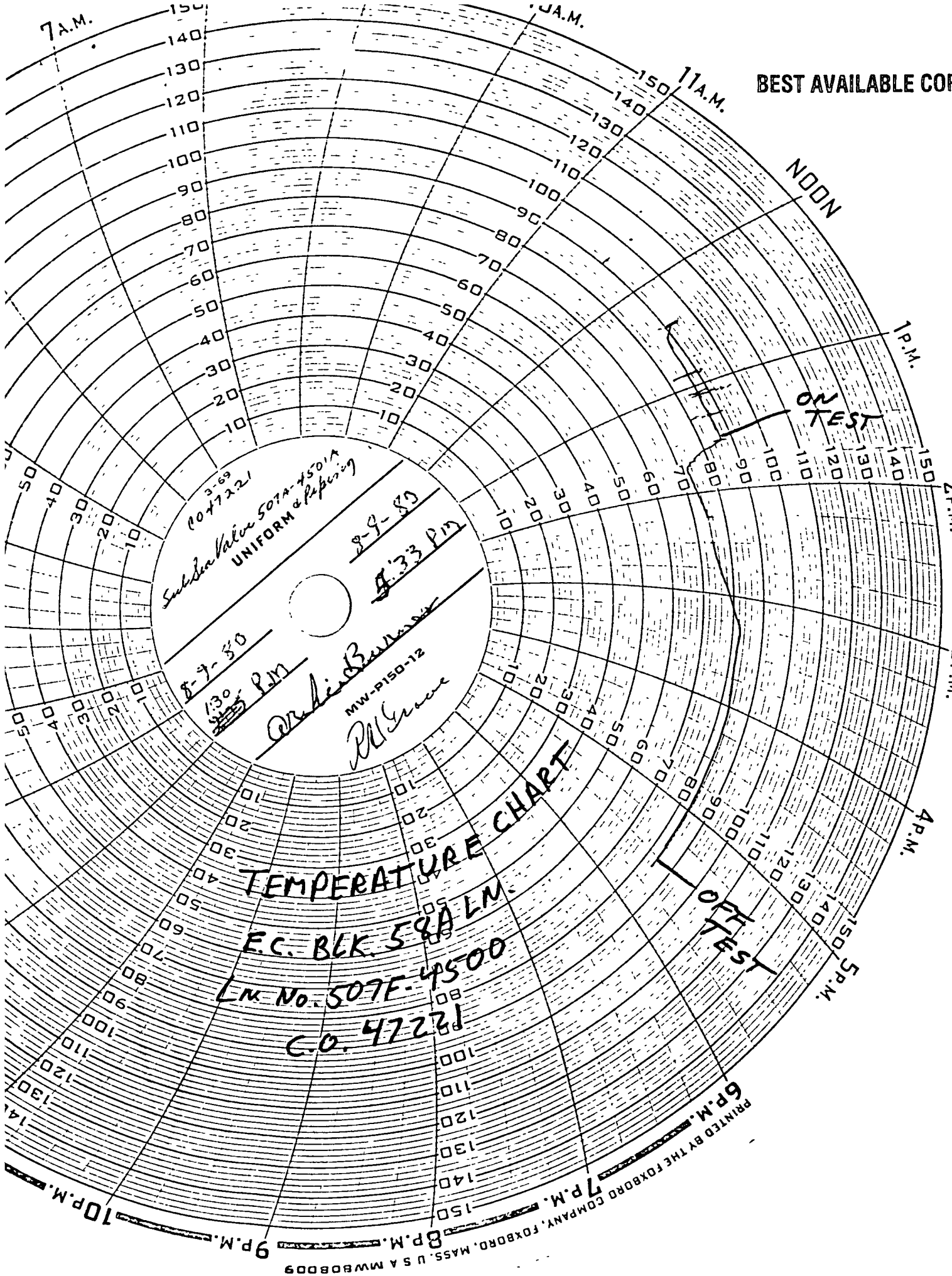
TGT 4207 3/80

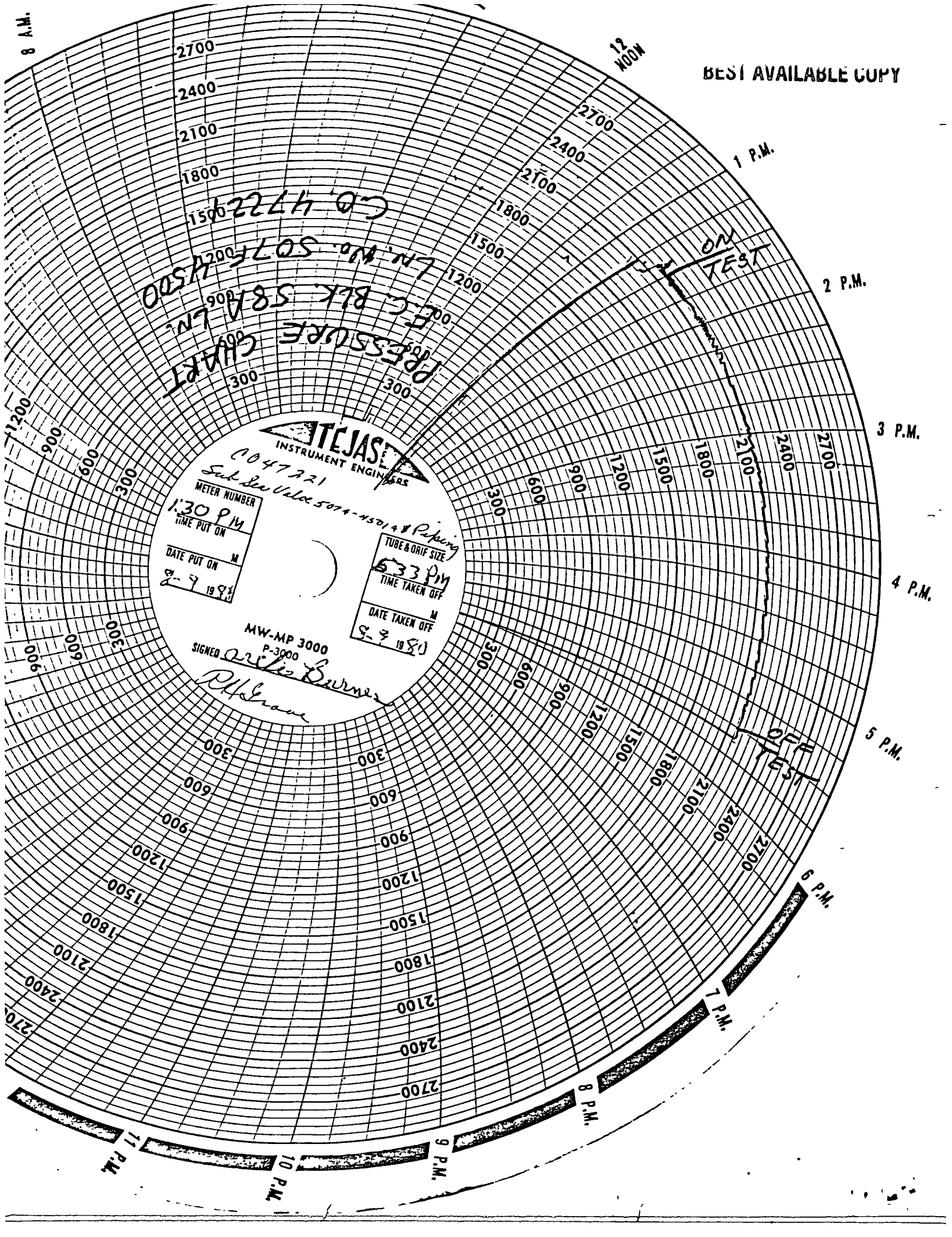
TABLE OF TEST PRESSURES

DATE	TIME	DEAD WEIGHT	TEMPERATURE (°F)		REMARKS (ON TEST, WEATHER, BLEED OFF, OFF TEST, NO OF STROKES FOR REPRESSURE, ETC)
			TEST WATER	AMBIENT	
8/9/80	4:22	2175-2165			BLEED OFF
	4:30	2175-2161	96°	94°	" "
	4:44	2175-2160			" "
	4:54	2175-2163			" "
	5:00	2172	97°	94°	" "
	5:01	2175-2163			" "
	5:10	2175-2163			" "
	5:15	2175-2160			" "
	5:24	2175-2166			" "
	5:33	2171	95°	94°	OFF TEST

COMMENTS







TGT 4207 3/71

NOTE: SEE PROCEDURE TGT 6-129 FOR INSTRUCTIONS

((TENNESSEE GAS PIPELINE (COMPANY)

SHEET 1 OF 1

PIPE TEST REPORT

507F-4500

C.O. NO.	DISTRICT	LINE NO	SPREAD	SECTION	DATE
47221	823	507F-4500	FAB YARD	I	JULY 26, 1980

DRAWING NO	LOCATION		SECTION TESTED		FOOTAGE
TE-F2-507F-4500-1B	FROM MLV	TO MLV	FROM STA. 0+00	TO STA. 0+39	39

NOMINAL PIPE	SIZE O.D.	W.T.	GRADE	MFR
6	6.625 IN.	.432 IN.	B	

100% S M Y S. PRESSURE	M.A.O.P.	PIPELINE CONTRACTOR
4564 PSIG	PSIG	INGRAM MARINE

HYDROSTATIC TEST CONTRACTOR	PROJECT MANAGER
INGRAM MARINE	JAMES DUNN

COMPANY PERSONNEL INVOLVED: KEITH C. SHOEMAKER

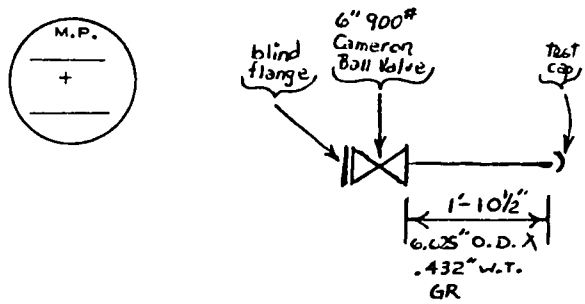
TEST MEDIUM (WATER, GAS, AIR, OTHER): WATER

	END OF TEST SECTION	PRESSURE POINT	HIGH ELEVATION	LOW ELEVATION	END OF TEST SECTION
MAP PLUS	0+00	0+39	0+39	0+39	0+39
ELEVATION (FEET)	← YARD	TESTED	—		→
TEST PRESSURE (PSI)	2160	2160	2160	2160	2160
% S M Y S	47%	47%	47%	47%	47%

TEST SKETCH (ATTACH ADDITIONAL SKETCH SHEET IF NECESSARY) → FLOW

TEST SECTION NO. I

PIPE AND BALL VALVE FOR SUB-SEA HOT TAP



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USEFUL CONVERSION FACTORS	WATER SOURCE	MILE POST	WATER SOURCE TEMPERATURE
• 1 FOOT OF WATER = .433 PSI • 1 PSI = 2.31 FEET OF WATER	tap	FAB YARD	80°F

DEVIATION DATA (OBSERVED AT PRESSURE PT)		PRESSURE		
	INITIAL DEVIATION	PSIG	% S.M.Y.S.	
	FINAL DEVIATION	PRESSURE PSIG	% S.M.Y.S.	DEVIATION PSI

FAILURE DATA (OBSERVED AT FAILURE PT)	DATE	TIME A.M. P.M.	MAP STATION	ELEVATION	FAILURE PRESSURE PSIG	% S.M.Y.S.
	DESCRIPTION (ATTACH SKETCH OR PHOTO)		REPAIRS MADE (USE BACK IF NEEDED)			

☑ ALL TIE-IN WELDS WERE NONDESTRUCTIVELY TESTED BY ASSOCIATED X-RAY

METHOD GAMMA RAY

ELEVATION DATA DERIVED FROM PROFILE SHEET TE- OR U S G S QUAD SHEET

TEST REJECTED	TEST ACCEPTED	DATE
NOTE SEE ABOVE FAILURE DATA	TEST INSPECTOR SIGNATURE K. Shoemaker	7/26/80
SIGNATURE	DISTRICT SIGNATURE S E Gentry	10/15/80
DATE	DIVISION SIGNATURE Reno N. Robertson	10-21-80
	AGENCY SIGNATURE	

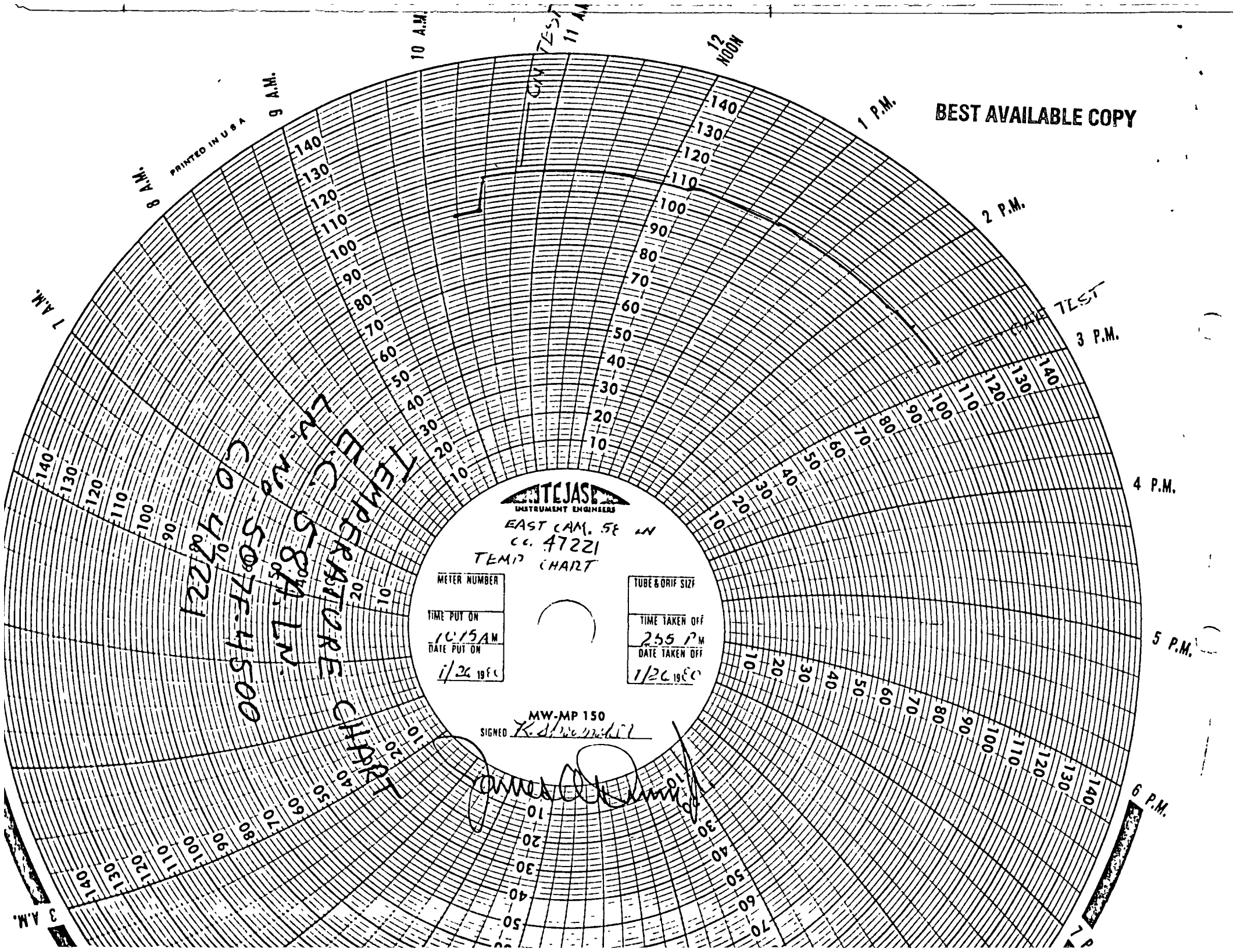
TGT 4207 8/71

TABLE OF TEST PRESSURES

DATE	TIME	DEAD WEIGHT	TEMPERATURE		REMARKS (ON TEST WEATHER BLEED OFF, OFF TEST, NO OF STROKES FOR REPRESSURE, ETC)
			TEST WATER	AMBIENT	
7/26/80	1051	2160	96	85	ON TEST
	1059	2164	96	87	" "
	1105	2166	104	89	" "
	1106	2168	104	89	" "
	1107	2169	104	89	" "
	1116	2175-2164	104	90	BLEED OFF
	1118	2173	104	90	ON TEST
	1119	2175-2160	105	90	BLEED OFF
	1130	2170	104	91	ON TEST
	1140	2171	105	91	" "
	1145	2175-2160	105	91	BLEED OFF
	1200	2169	108	91	ON TEST
	1215	2165	107	91	" "
	1230	2164	106	89	" "
	1240	2175-60	108	92	BLEED OFF
	1252	2175-2160	108	93	BLEED OFF
	1300	2175-2160	108	94	" "
	1315	2170	107	92	" "
	1330	2175-2165	108	93	" "
	1350	2175-2165	107	92	" "
	1413	2165	106	90	ON TEST
	1435	2160	106	90	" "
	1500	2160	108	89	OFF TEST - BLEED DOWN

COMMENTS

DEAD WT. APPARATUS - CHANDLER - S/N 864T (3911)
PRESSURE RECORDER - BARTON - S/N 242A-69873
TEMPERATURE RECORDER - BARTON - S/N 265A-23869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TEJAS
INSTRUMENT ENGINEERS
EAST CAM. SE UN
cc. 47221
TEMP CHART
METER NUMBER
TUBE & ORIF SIZE
TIME PUT ON
10:15 AM
TIME TAKEN OFF
2:55 PM
DATE PUT ON
1/26 19EC
DATE TAKEN OFF
1/26 19EC
MW-MP 150
SIGNED
PRINTED IN U.S.A.
12 NOON
1 P.M.
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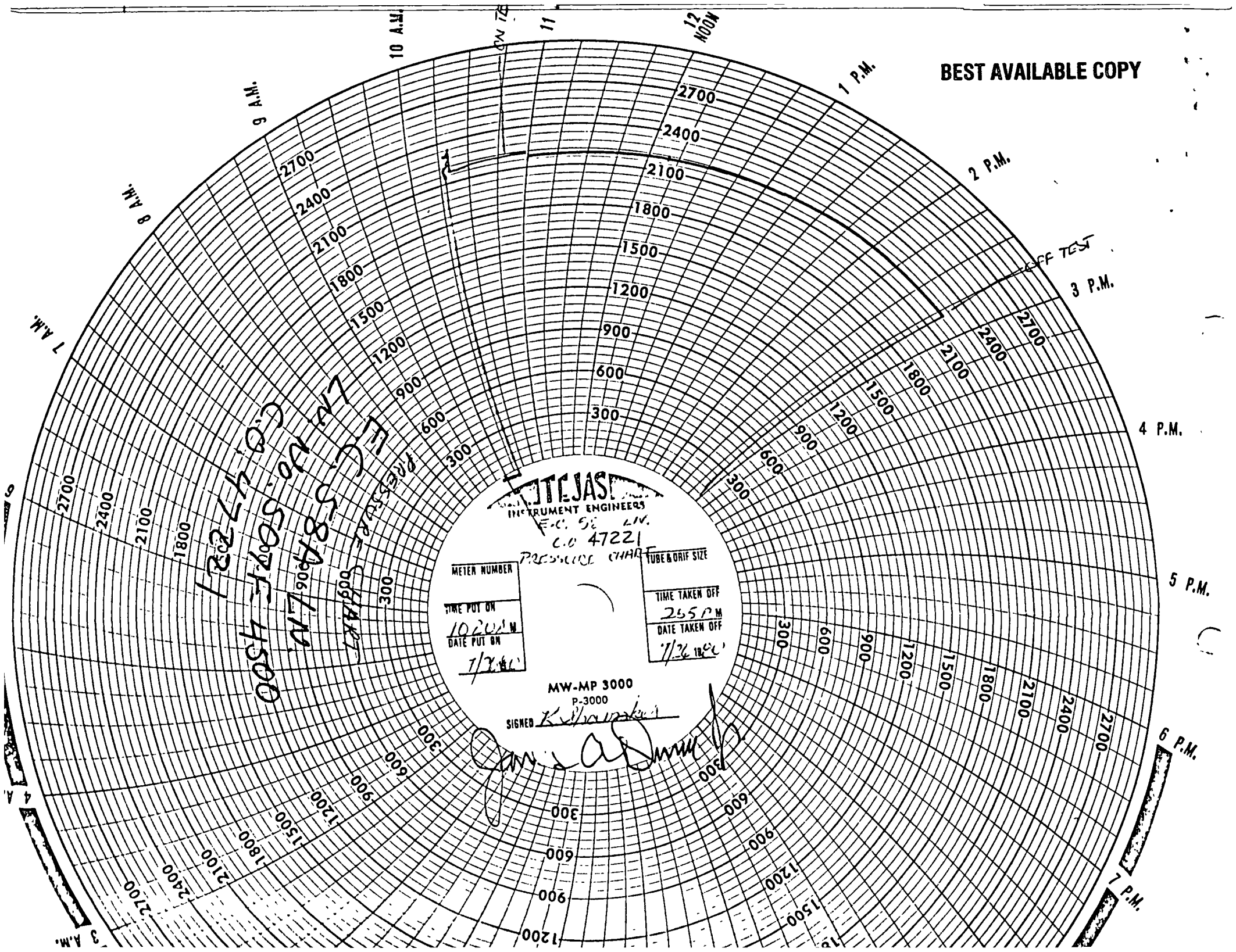


TENNECO TENNESSEE GAS PIPEL. Co (COMPANY)

NOV 13 1980

PIPE LINE TEST

NOTE SEE PROCEDURES TGT 6-129 FOR INSTRUCTIONS

C.O. NO.	DISTRICT	LINE NO	SPREAD	SECTION	DATE
47221	823	507F-4500	I	I	OCTOBER 6, 1980

DRAWING NO	LOCATION	SECTION TESTED	FOOTAGE
TE-F2-507F-4500-1,-10	FROM MLV 507F-4502 TO MLV	FROM STA FAB YARD TO STA.	

NOMINAL PIPE	SIZE O D.	W T	GRADE	MFR.
	12 IN	.687 IN.	B	U.S STEEL

100% S M Y S PRESSURE	M A.O.P.	PIPELINE CONTRACTOR
3774 PSIG	PSIG	M & H WELDERS

HYDROSTATIC TEST CONTRACTOR	PROJECT MANAGER
B.O.P TESTING & RENTALS	MERL CARTER

COMPANY PERSONNEL INVOLVED
ED PAGELS

TEST MEDIUM (WATER, GAS, AIR, OTHER)
WATER

	END OF TEST SECTION	PRESSURE POINT	HIGH ELEVATION	LOW ELEVATION	END OF TEST SECTION
MAP PLUS					
ELEVATION (FEET)		YARD	TESTED		
TEST PRESSURE (PSI)	2160	2160	2160	2160	2160
% S M Y S	57.2	57.2	57.2	57.2	57.2

TEST SKETCH (ATTACH ADDITIONAL SKETCH SHEET IF NECESSARY) ——→ FLOW TEST SECTION NO I

M.P. +

SEE ATTACHED DRAWING

USEFUL CONVERSION FACTORS
- 1 FOOT OF WATER = .433 PSI
- 1 PSI = 2.31 FEET OF WATER

WATER SOURCE	MILE POST	WATER SOURCE TEMPERATURE
CITY WATER		68°

DEVIATION DATA (OBSERVED AT PRESSURE PT)

	PRESSURE		
INITIAL DEVIATION	PSIG	% S M Y.S	
FINAL DEVIATION	PSIG	% S M.Y.S.	DEVIATION PSI

FAILURE DATA (OBSERVED AT FAILURE PT)

DATE	TIME	A.M P.M	MAP STATION	ELEVATION	FAILURE PRESSURE PSIG	% S M Y.S.

DESCRIPTION (ATTACH SKETCH OR PHOTO)

REPAIRS MADE (USE BACK IF NEEDED)

☒ ALL TIE-IN WELDS WERE NONDESTRUCTIVELY TESTED
METHOD GAMMA-RAY BY ASSOCIATED

ELEVATION DATA DERIVED FROM PROFILE SHEET TE- OR U S G S QUAD SHEET

TEST REJECTED	TEST ACCEPTED	DATE
NOTE SEE ABOVE FAILURE DATA	TEST INSPECTOR SIGNATURE E. D. Fagle by Ref.	10-6-80
SIGNATURE	DISTRICT SIGNATURE S. B. Autrey	11-10-80
DATE	DIVISION SIGNATURE Rene G Robertson	5-26-81
	AGENCY SIGNATURE	

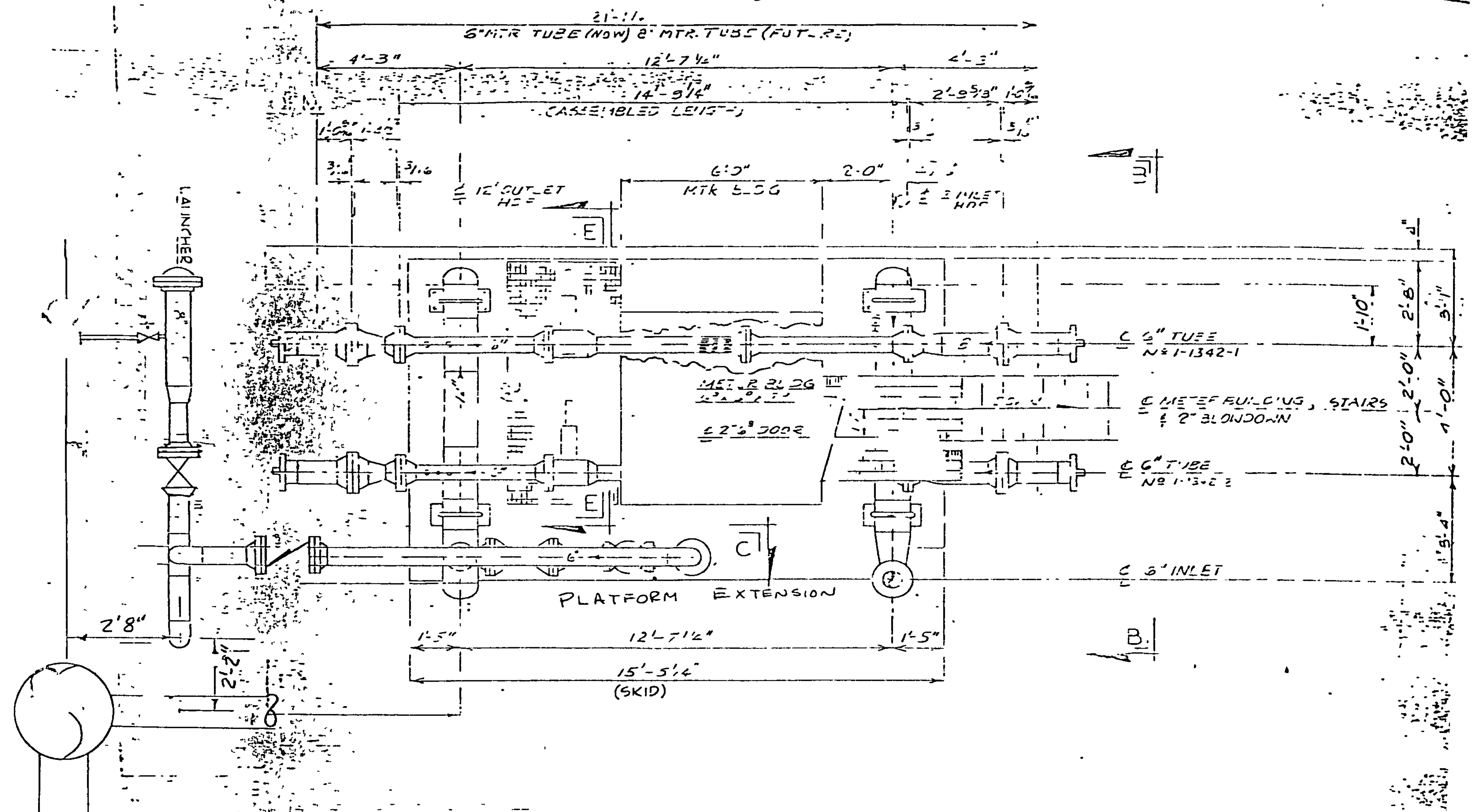
GT 4207 3/80

TABLE OF TEST PRESSURES

DATE	TIME	DEAD WEIGHT	TEMPERATURE		REMARKS (ON TEST, WEATHER, BLEED OFF, OFF TEST, NO OF STROKES FOR REPRESSURE, ETC)
			TEST WATER	AMBIENT	
10/6/80	0900	0	68°	69°	PRESSURING UP; COOL CLEAR SUNNY
	0908	1400	68°	68°	GROVE GATE VALVE LEAKING
	0918	0	68°	69°	PRESSURING UP, WEATHER SAME
	0940	2160	70°	73°	REACHED TEST PRESS. BOTH TEMPS ↑
	0952	2158	70°	73°	ORIFICE PLATE 3 PLUGS LEAKING. BLEED OFF
	1000	0	71°	73°	PRESSURING UP; WATER TEMP RISING
	1015	2161	72°	74°	REACHED TEST PRESSURE, BOTH TEMPS RISING
	1030	2168	72°	74°	PRESSURE & TEMPS HOLDING, NO LEAKS
	1038	2175-2160	72°	74°	BLED DOWN TO 2160, TEMPS HOLDING
	1045	2164	72°	74°	PRESSURE HOLDING, BOTH TEMPS HOLDING
	1058	2175-2160	73°	75°	BLED DOWN TO 2160, BOTH TEMPS RISING
	1100	2163	73°	75°	PRESSURE HOLDING NO VISIBLE LEAKS
	1110	2175-2160	74°	75°	BLED DOWN TO 2160; BOTH TEMPS RISING
	1115	2165	74°	75°	TEST PRESS & BOTH TEMPS HOLDING, WEATHER SAME
	1127	2175-2160	74°	75°	BLED DOWN TO 2160, BOTH TEMPS STABLE
	1130	2165	74°	75°	PRESS & BOTH TEMPS STABLE, NO VISIBLE LEAKS
	1138	2175-2160	74°	75°	BLED DOWN TO 2160, BOTH TEMPS STABLE
	1145	2162	74°	75°	PRESSURE HOLDING, TEMPS STEADY, WEATHER SAME
	1153	2160	75°	76°	BLED DOWN TO 2160, BOTH TEMPS UP
	1200	2169	75°	76°	PRESSURE HOLDING BOTH TEMPS & WEATHER STABLE
	1205	2175-2160	75°	76°	BLED DOWN TO 2160, BOTH TEMPS STABLE
	1215	2171	76°	76°	PRESS HOLDING, NO LEAKS, BOTH TEMPS STABLE
	1220	2175-2160	76°	76°	BLED DOWN, WEATHER SAME, TEMPS STABLE
	1230	2175-2160	76°	76°	" " "
	1245	2175-2160	76°	76°	" " "
	1300	2175-2160	76°	76°	" " "
	1312	2175-2160	77°	78°	" BOTH TEMPS UP, SUNNY
	1325	2175-2160	77°	78°	" BOTH TEMPS STABLE
	1338	2175-2160	77°	78°	" "
	1340	2175-2160	77°	78°	" "
	1400	2170	78°	78°	PRESS HOLDING, BOTH TEMPS UP
	1408	2175-2160	78°	79°	BLED DOWN, AMBIENT TEMP UP, NO LEAKS
	1415	2173	78°	79°	PRESS RISING, BOTH TEMPS STABLE, WEATHER SAME, NO VISIBLE LEAKS, OFF TEST.

COMMENTS

CHANDLER DEAD WT. TESTER
BARTON PRESSURE RECORDER
BARTON TEMPERATURE RECORDER



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58 A - PLATFORM

TITLE	REVISIONS					
	NO	DATE	REMARKS	REV	CKD	APP
	1		REV. & REDRAWN			
	2		CHG'D DIMENSION			

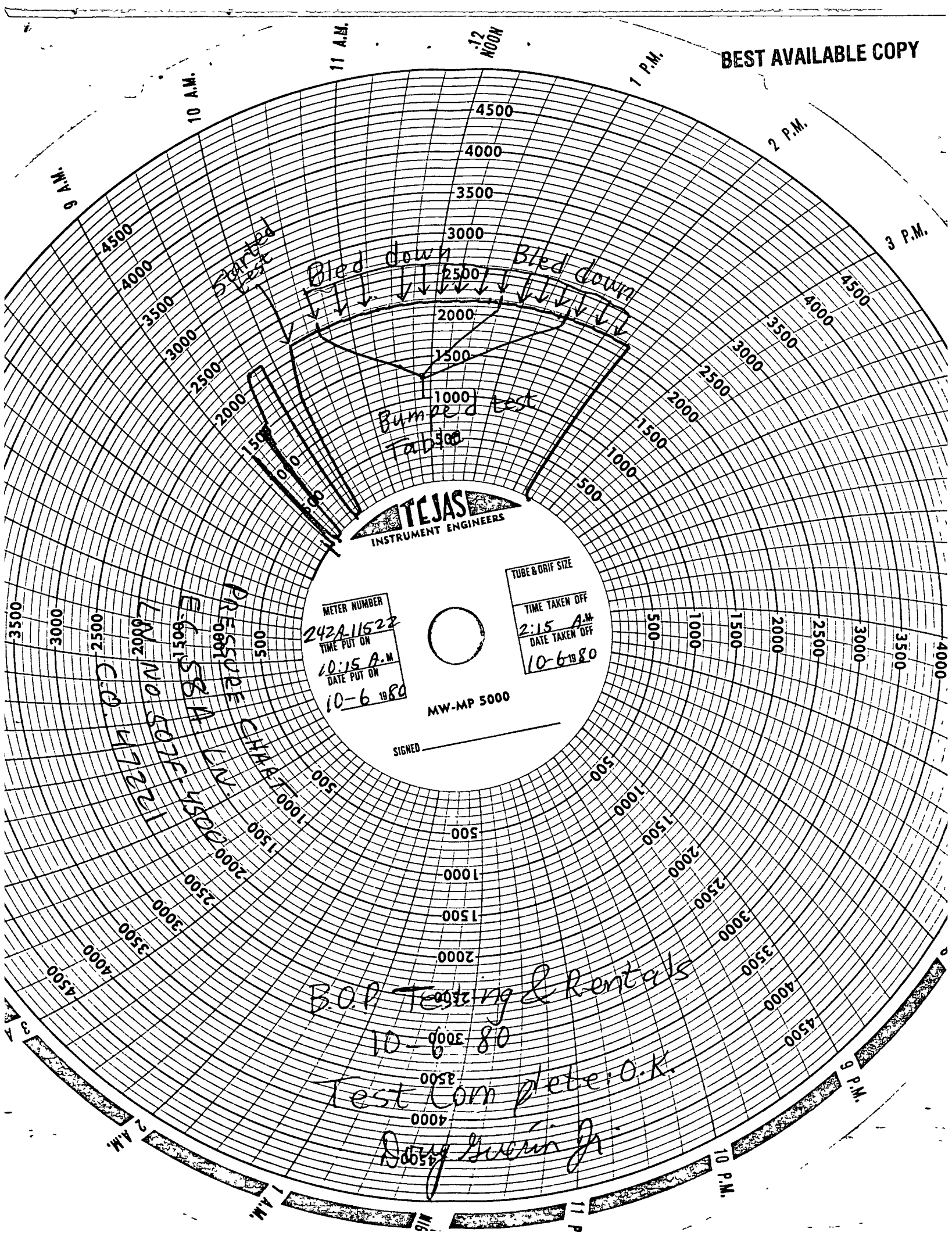
TENNECO

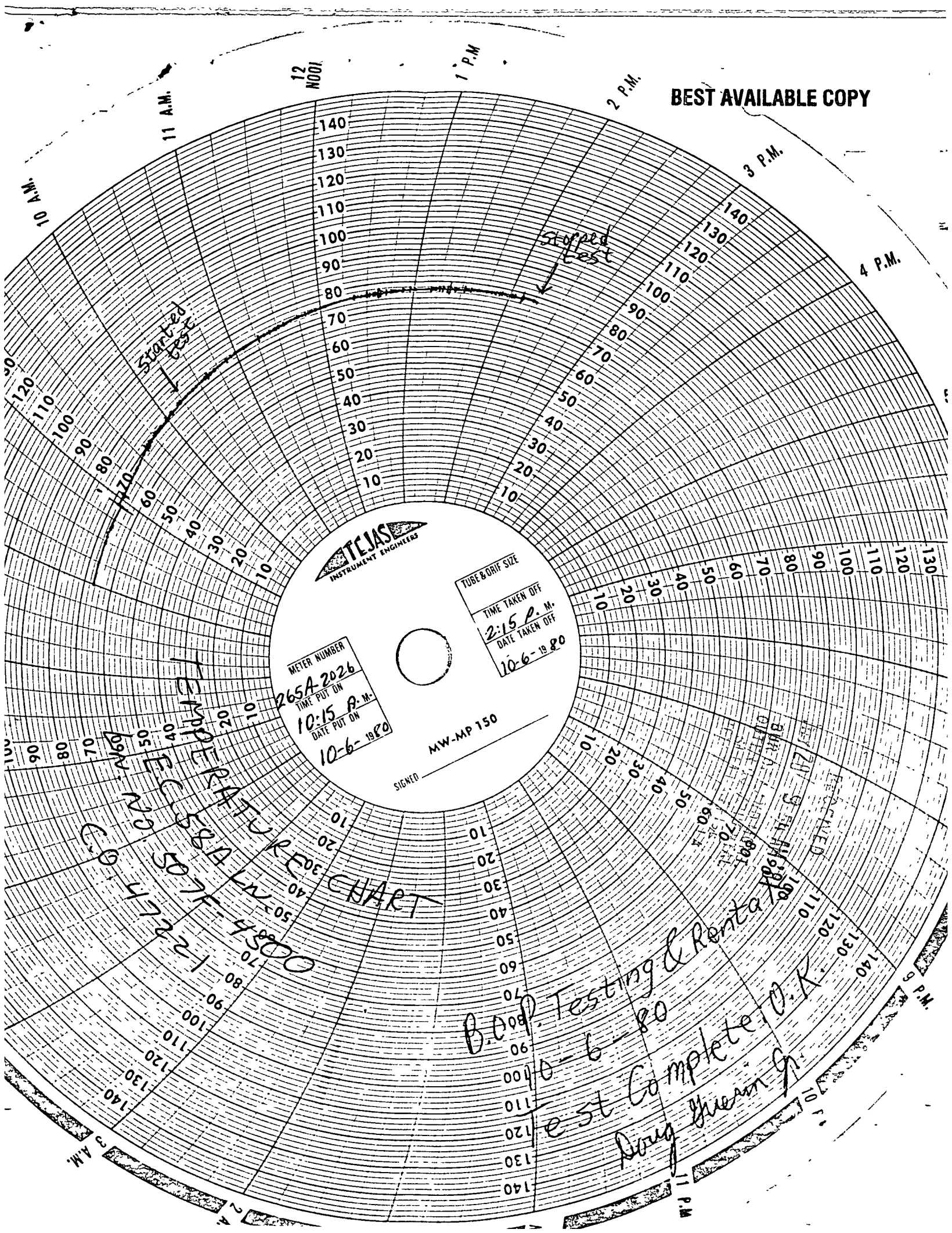
Tennessee Gas Pipeline Company

Division of Tenneco Inc

Engineering Department

Houston, Tex





TAX DISTRICT DATA

Federal Offshore

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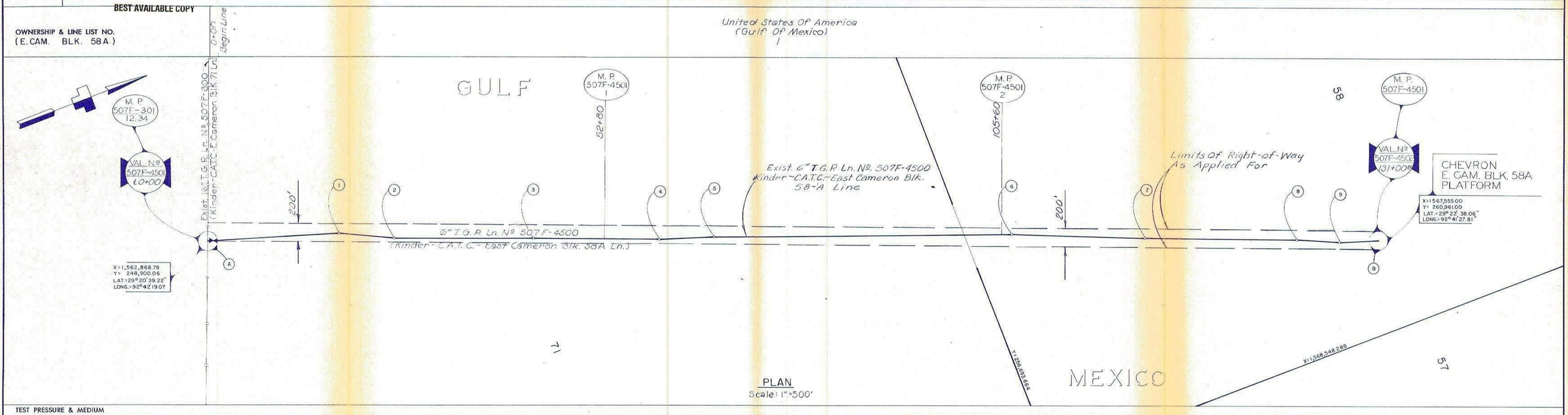
OWNERSHIP & LINE LIST NO.
(E.CAM. BLK. 58A)



PLAN
Scale: 1"=500'

TEST PRESSURE & MEDIUM

PT.	BEARING & DISTANCE	LAMBERT COORDINATES	
A		X = 1,562,868.78	Y = 248,900.06
1	N 17°53'38" E — 1,425.91'	X = 1,563,306.87	Y = 250,256.99
2	N 26°27'22" E — 615.74'	X = 1,563,581.19	Y = 250,808.25
3	N 21°23'37" E — 1,336.21'	X = 1,564,141.38	Y = 252,238.62
4	N 21°51'45" E — 1,398.78'	X = 1,564,662.33	Y = 253,536.78
5	N 18°49'49" E — 603.37'	X = 1,564,857.11	Y = 254,107.85
6	N 20°45'01" E — 3,230.29'	X = 1,566,022.94	Y = 257,184.72
7	N 22°56'16" E — 1,482.85'	X = 1,566,599.93	Y = 258,550.65
8	N 21°46'10" E — 1,687.56'	X = 1,567,225.85	Y = 260,117.85
9	N 24°07'58" E — 474.15'	X = 1,567,422.21	Y = 260,549.43
B	N 19°44'52" E — 437.28'	X = 1,567,555.00	Y = 260,961.00

Note: Co-ordinates On Points 1-9 Were Established By Radyist Survey. Bearings And Distances Were Calculated Using the Lambert Grid (South Zone) System. The Route As Shown May Not Necessarily Be The Exact Location Of the Pipeline.

LOCATION OF RIGHT-OF-WAY HAS BEEN ACCURATELY DELINEATED UPON THIS MAP
LARRY JAMES BROUSSARD
LOUISIANA REGISTERED PROFESSIONAL CIVIL ENGINEER NO. 14589

Note: Line Was Laid In Accordance w/ Req'd's Of B.L.M. Permit As Issued.

PROFILE

WELDING PROCEDURE	MATERIAL SUMMARY		
	QUANTITY	ITEM NO.	DESCRIPTION

RECEIVED
MAY 28 9 54 AM '81
BUR OF LAND MGMT
SUBSURFACE ENVIRONMENTAL
NEW ORLEANS, LA.

Sog5493

AS-CONSTRUCTED

OCS-G 4150

C.O. NUMBER & DESCRIPTION								
FIELD BOOKS	PRELIM.							
	CONST.							
	FINAL							

THIS DWG. CURRENT THRU:

REFERENCE DRAWINGS

DRAWING NO.	TITLE

Tennessee Gas Pipeline Company
Division of Tenneco Inc.
Engineering Department **Houston, Texas**

DRAWN BY C.M.	DATE 5-81	
CHECKED BY GLT	DATE 5-81	
CORRECTED BY RSM	DATE 5-6-81	
APPROVED BY	DATE	
	SCALE Shown	
ISSUE DATES	ORIGINAL	
	LAST	

KINDER-C.A.T.C.-EAST CAMERON BLK. 58A LINE

LINE Nº 507F-4500

EAST CAMERON AREA, GULF OF MEXICO

VALVE SECTION ENTIRE LINE ON THIS SHEET

APPROVED BY _____ CHIEF ENGINEER

TENNESSEE GAS PIPELINE CO.

TO-F507F-4500-1

Tennessee Gas Pipeline
Division of Tenneco Inc.

P.O. Drawer 53388
Lafayette, Louisiana 70505
(318) 233-7802

July 30, 1980

The Bureau of Land Management
U. S. Dept. of The Interior
Hale Boggs Federal Building
500 Camp Street, Suite 841
New Orleans, LA 70113

Attention: Chief, Division of Operations

Your Re: OCS-G 4150

Our Re: East Cameron Blk. 58A Ln.

Dear Sir:

Please be advised that Tennessee Gas Pipeline Company's contractor Ingram Marine plans to start construction on the above captioned line on or before August 4, 1980. Contractors lay barge does not have a heliport on same.

Yours very truly,

R. S. Perot
Right of Way Agent

RSP/kom

cc: R. L. Sanderson
L. J. Broussard
H. E. Fisher
R. G. Robertson
C. C. Mantlo
J. D. DeBlieux
George Benoit
F. J. Millette, Jr.
ROW File

3340 (210)

March 24, 1980

Tenneco, Inc.
Attention: F. J. Millette
P. O. Box 53388
Lafayette, Louisiana 70505

Gentlemen:

Please furnish proof of construction in accordance with 43 CFR 3340.3 on the following pipeline rights-of-way:

OCS-G Number	Decision Issued	OCS-G Number	Decision Issued
3360	9-15-76	4061	9-20-79
3640	12-16-77	4150	10-09-79
3645	3-22-78	4154	10-11-79
3837	8-25-78	4158	10-11-79
3867	11-02-78	4160	10-22-79
3873	11-02-78	4161	10-22-79
4028	6-12-79	4169	11-05-79
4029	8-09-79	4171	12-13-79
4030	7-23-79	4172	12-13-79
4040	8-14-79	4173	12-13-79

H. P. Sieverding
Acting Manager

210:DWild:prb:3/24/80

OCT 1 0 1979

OCS-G 4150

BEST AVAILABLE COPY

East Cameron Area

September 28, 1979

Tenneco Inc.

Right-of-Way

ACTION - APPLICATION APPROVED

Your application for a six-inch natural gas pipeline from Chevron U.S.A. Inc.'s Platform "A" in Block 58 to a subsea tie-in with Tenneco Inc.'s existing 16-inch pipeline (OCS 0643) in Block 71, East Cameron Area, dated July 31, 1979, with its attachments, and amendment thereto dated August 17, 1979, is hereby approved with the following additions and corrections:

1. The ANSI 600 valves, flanges, and fittings should not be subjected to a body test greater than 2,175 psig, and a test pressure differential greater than 1,440 psig.

2. Hydrostatic test data including test procedure, hold time, two copies of the pressure charts and results, along with two copies of the completion report consisting of a plat showing the location of the pipeline as installed, must be submitted to this office within ninety (90) days after completion.

3. When installing the valve guard, all six (6) anchor pins shall be installed deep enough so as to reach firm soil.

4. Immediately following installation of the valve guards, the corners shall be sandbagged.

5. The unidentified anomaly on Line 102 at Shot Point 119 should be avoided by 150m when placing lay barge anchors.

The permittee agrees that if any site, structure, or object of historical or archaeological significance should be discovered during the conduct of any operations within the permitted right-of-way he shall report immediately such findings to the Manager, New Orleans OCS Office, and make every reasonable effort to preserve and protect the cultural resource from damage until the Manager, New Orleans OCS Office, has given directions as to its preservation.

NOTED—MC INTOSH

NOTED – PATZ

Permittee agrees to comply with all regulations and conditions as may be prescribed by the Secretary of the Interior, or the Secretary of Transportation including, pursuant to section 21(b) of the OCS Lands Act, as amended, provisions to assure maximum environmental protection by utilization of the best available and safest technologies, including the safest practices for pipeline burial. This agreement includes but is not limited to complying with the following stipulations:

1. Permittee shall transport or purchase without discrimination oil or natural gas produced from submerged lands or outer Continental Shelf lands in the vicinity of its pipeline in such proportionate amounts as the Federal Energy Regulatory Commission, in consultation with the Secretary of Energy, may, after a full hearing with due notice thereof to the interested parties, determine to be reasonable, taking into account, among other things, conservation and the prevention of waste.

2. Permittee shall operate its pipeline in accordance with the competitive principles set out in section 5(f)(1) of the Outer Continental Shelf Lands Act, as amended, except insofar as the Federal Energy Regulatory Commission may, by order or regulation, exempt such pipeline from any or all of the requirements of section 5(f)(1) pursuant to section 5(f)(2) (which permits such exemption of any pipeline or class of pipelines which feeds into a facility where oil and gas are first collected or a facility where oil and gas are first separated, dehydrated, or otherwise processed).

3. Unless so exempted by Federal Energy Regulatory Commission order or regulation, permittee shall operate its pipeline so as to provide open and nondiscriminatory access to both owner and nonowner shippers, and permittee shall comply with any specific conditions which the Secretary of Energy and the Federal Energy Regulatory Comission may require, after consultation with and due consideration given to the views of the Attorney General, to ensure that its pipeline is operated in accordance with the competitive principles set forth in section 5(f)(1).

/s/ John L. Rankin
John L. Rankin, Manager
Date: October 9, 1979

Tenneco Inc. hereby agrees to be bound by the foregoing.

/s/ F. J. Millette

Date: October 5, 1979

cc: Geological Survey, USDI
Office of Pipeline Safety Operations, USDT

United States Department of the Interior

BUREAU OF LAND MANAGEMENT

NEW ORLEANS OUTER CONTINENTAL SHELF OFFICE

HALE BOGGS FEDERAL BUILDING

500 CAMP STREET—SUITE 841

NEW ORLEANS, LA 70130

IN REPLY REFER TO

OCS-G 4150

August 31, 1979

SEP 0 4 1979

Memorandum

To: Conservation Manager
Gulf of Mexico OCS Operations

From: Manager
New Orleans OCS Office

Subject: Tenneco Inc.'s Pipeline Right-of-Way Application (OCS-G 4150)

Attached is additional information which you may use to further evaluate the subject pipeline application.

If you have any questions regarding this matter, please contact Mr. Autry J. Britton of this office.

Acting

Attachment
1-Tenneco Inc.'s Letter Dated August 17, 1979

NOTED—MC INTOSH

NOTED – PATZ

0A3
8-31-79

Tennessee Gas Pipeline
Division of Tenneco Inc.

P.O. Drawer 53388
Lafayette, Louisiana 70505
(318) 233-7802

August 17, 1979

FILE CODE
ROUTE INITIAL
MGR.
ASST. MGR.
AUG 20 1979
P. LEGAL
PAO
EAD
OPS
STUDIES
MGMT. SER.

Mr. John L. Rankin, Manager
Outer Continental Shelf Office
Hale Boggs Federal Building
500 Camp Street, Suite 841
New Orleans, Louisiana 70130

Our Re: Application - Right of Way for 6" Natural Gas Pipeline in East Cameron Area, Gulf of Mexico (E.C. Blk. 58A Line)

Your Re: OCS G-4150

Gentlemen:

We would like to amend our M.A.O.P. to read 1,232# P.S.I. rather than the 1,440# P.S.I. as submitted. The reason for the change was due to the 507F-300 line that subject line is tying into has a M.A.O.P. of 1,232# P.S.I. The producers Hi-Lo Sensors will be set at a pressure not to exceed 1,232# P.S.I. maximum and 500# P.S.I. minimum.

We would like to apologize for any inconvenience we have cause you.

Yours very truly,

F. J. Millette

F. J. Millette, Supervisor
Rights of way and as
Agent and Attorney-in-Fact

FJM:CJB/jsb

cc: R. E. Lyons
R. L. Sanderson
R. G. Robertson
L. J. Broussard
Autrey Britton
File (2)

RECEIVED
AUG 20 11 19 AM '79
BUR OF LAND MGMT.
OUTER CONTINENTAL
SHELF OFFICE
NEW ORLEANS, LA.

United States Department of the Interior

GEOLOGICAL SURVEY
434 IMPERIAL OFFICE BLDG., 3301 N. CAUSEWAY BLVD
P O BOX 7944
METAIRIE, LOUISIANA 70010

TEL (504) 837-4720

In Reply Refer To: OS-5

AUG 23 1979

Memorandum

To: Manager, Bureau of Land Management, 841 Hale Boggs Federal Building, 500 Camp Street, New Orleans, Louisiana 70130

From: Conservation Manager, Gulf of Mexico Region

Subject: Tennessee Gas Pipe Line Company's Pipeline Right-of-Way Application, BLM OCS-G 4150

We have reviewed the safety features and design specifications for the subject Right-of-Way Application, dated July 31, 1979, in accordance with the MOU dated August 1, 1974. It is for the construction, maintenance, and operation of a 6 5/8-inch gas pipeline 12,832 feet in length from Chevron's Platform "A", East Cameron Block 58, lease OCS-G 3530, to a subsea tie-in with an existing Tennessee Gas Pipe Line Company 16-inch pipeline in East Cameron Block 71, lease OCS 0163.

Based upon information submitted in the application, the design characteristics of this pipeline are calculated to be as follows:

Pipeline Component	Maximum Allowable Operating Pressure/WP Ratings
Submerged component	3,286 psig
Riser component	2,282 psig
Valves, flanges, fittings	1,440 psig

The hydrostatic pressure test with water will be at 2,160 psig for eight hours for the submerged component. The riser will be preinstallation-tested to a pressure of 2,160 psig for four hours. The ANSI 600 valves should not be subjected to a test-pressure differential greater than 1,440 psig. The ANSI 600 valves, flanges, and fittings should not be subjected to a body test greater than 2,175 psig.

Based on these calculations and a maximum allowable operating pressure (MAOP) of 1,232 psig of the receiving 16-inch Tennessee Gas Pipe Line Company pipeline (BLM OCS 0643), we recommend that the MAOP for this pipeline be 1,232 psig and that this pressure may be exceeded only when hydrostatically pressure-testing the pipeline.

It is the opinion of this office that the design and installation of the valve guards proposed for this pipeline are not in the best interest of the multiple-use concept of the OCS. We feel that installations of this type present an obstruction and that all subsea valves on the OCS should be provided with a minimum of three feet of cover, either through burial or with sandbags.

The technical aspects of the proposed pipeline are acceptable in accordance with appropriate regulations and standards.

We would appreciate receiving a copy of the plat showing the location of the pipeline as installed.

Dwayne E. Hull

Acting Conservation Manager

IN REPLY REFER TO

United States Department of the Interior

BUREAU OF LAND MANAGEMENT

NEW ORLEANS OUTER CONTINENTAL SHELF OFFICE
HALE BOGGS FEDERAL BUILDING
500 CAMP STREET—SUITE 841
NEW ORLEANS, LA 70130

OCS-G 4150
OCS-G 0643

August 20, 1979

AUG 2 2 1979

Memorandum

To: Conservation Manager
Gulf of Mexico OCS Operations

From: Manager
New Orleans OCS Office

Subject: Tenneco Inc.'s Pipeline Right-of-Way (OCS-G 4150)
Tenneco Inc.'s Pipeline Right-of-Way (OCS-G 0643)

Attached is additional information which you may use to further evaluate the above subject.

If you have any questions regarding this matter, please contact Mr. Autry J. Britton of this office.

Attachment

1-Confirmation/Report of Telephone Conversation
dated August 16, 1979

NOTED—MC INTOSH

Form 1541–3
(July 1965)
(formerly 4–1599 a)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCS-G 4150
OCS-G 0643

CONFIRMATION/REPORT OF TELEPHONE CONVERSATION

TO	Name: Carroll Breaux	FROM	Name: Autry J. Britton
	Office: Tenneco Inc.		Office: OCS
	Location: Lafayette, Louisiana		Location: New Orleans, La.
	Telephone Number: (318) 233-7802		Telephone Number: 589-3522

Purpose of Call:

I called Mr. Breaux per request of U.S. Geological Survey to determine the Maximum Allowable Operating Pressure (MAOP) of their 16-inch pipeline segment (OCS-G 0643). Tenneco Inc's proposed 16" pipeline OCS-G 4150 will tie into their 16-inch pipeline.

Mr. Breaux stated that the 16-inch pipeline have not operated in excess of 1232 psig for the past five (5) years therefore they have assigned a MAOP of psig. I informed Mr. Breaux that the MAOP of the proposed 6-inch pipeline will be limited to 1232 psig because of the MAOP of the tie in pipeline. Mr. Breaux stated he would submit a letter to this effect to be made part of the proposed right-of-way application.

Explanatory Remarks:

8-16-79
(Date)

Autry J. Britton
(Signature)

READING FILE

IN REPLY REFER TO

OCS-G 4150

United States Department of the Interior

BUREAU OF LAND MANAGEMENT

NEW ORLEANS OUTER CONTINENTAL SHELF OFFICE
HALE BOGGS FEDERAL BUILDING
500 CAMP STREET–SUITE 841
NEW ORLEANS, LA. 70130

4150-1

August 7, 1979

AUG 13 1979

Memorandum

To: Conservation Manager
Gulf of Mexico OCS Operations

From: Manager
New Orleans OCS Office

Subject: Tenneco Inc.'s Pipeline Right-of-Way Application (OCS-G 4150)

In accordance with the memorandum of understanding between the Bureau of Land Management and U.S. Geological Survey signed August 1, 1974, the subject application is enclosed.

Please review the technical aspects of the proposed pipeline. If you have any questions regarding this matter, please contact Mr. Autry J. Britton of this office.

Enclosures (3)

1. Application dated July 31, 1979
2. Drawings Nos. TA-L2-F507F-4500-1; -1A; -1B; and -1C
3. Drawing No. TB-L2-F507F-4500-1D

Tennessee Gas Pipeline
Division of Tenneco Inc

P.O. Drawer 53388
Lafayette, Louisiana 70501
(318) 233-7802

July 31, 1979

Mr. John L. Rankin, Manager
Outer Continental Shelf Office
500 Camp Street, Suite 841
Hale Boggs Federal Building
New Orleans, LA 70130

Re: Application - Right of Way for
6" Natural Gas Pipeline in East
Cameron Area - Gulf of Mexico
E. Cameron Blk. 58-A Line

Dear Mr. Rankin:

Pursuant to the authority granted in Section 5 (e) of the Outer Continental Shelf Lands Act (67 Stat. 462) (43 U.S.C. 1331), as amended (92 Stat. 629), and in compliance with the regulations contained in Title 43 CFR 3340, Tennessee Gas Pipeline Company, a Division of Tenneco Inc., is filing this application for a right of way 200 feet (200') in width for the purpose of constructing and maintaining a six (6") inch natural gas pipeline in the East Cameron Area, Gulf of Mexico. Tennessee Gas Pipeline Company agrees that said right of way, if approved, will be subject to the terms and conditions of said regulations.

This pipeline will be used to gather and transport natural gas from Chevron's "A" platform in Block 58, East Cameron Area, in the Gulf of Mexico. The tentative construction date is September 1, 1979, and tentative completion date is October 15, 1979.

As set forth in the February 13, 1978, guidelines, the applicant agrees to furnish the following:

1. Letter of Application in triplicate.

2. Certified and Return Receipts with copies of letter of notification to the following lease and right of way holders:

   a. Continental Oil Company - OCS - 0163
   b. Atlantic Richfield Company - OCS - 0163
   c. Getty Oil Company - OCS - 0163
   d. Cities Service Company - OCS - 0163
   e. Chevron U.S.A., Inc. - OCS - G - 3530
   f. Union Oil Company - OCS - G - 3530
   g. Gen. American Oil Co. of Texas - OCS - G - 3530

Mr. John L. Rankin, Manager
Outer Continental Shelf Office
Page 2
East Cameron 58-A Line

3. Six (6) blue line prints of Drawing No. TA-L2-F507F-4500-1, 1A and 1B showing the location, profile and route of the proposed pipeline and Hi-Lo Censor locations.

4. Two (2) blue line prints of Drawing No. TA-L2-F507F-4500-2 showing the leases and pipeline rights of way.

5. Bury all pipelines to a minimum of 3 feet of cover up to the 200 ft. contour.

6. Bury all sub-sea valves to a minimum of 1 foot of cover regardless of water depth.

7. A hazard survey report of the proposed right of way route is attached in duplicate.

8. An archaeological survey report as stipulated in requirements is not required.

9. In accordance with the guidelines an As-Built map along with diving inspection reports will be provided within 90 days after completion of the pipeline.

10. Safety devices will be provided as set forth on attached schematic Drawing No. TA-L2-F507F-4500-1B.

11. Proper notification prior to construction and hydrostatic testing will be adhered to.

12. Any pipeline crossings will be in compliance with the guidelines as set forth.

13. Any breaks, leak failures or accidents will be reported as required.

In addition to the above information, applicant submits the following information.

1. Water depth along route of proposed pipeline and pipeline in relationship to natural bottom as set forth on attached Drawing No. TA-L2-F507F-4500-1A.

2. The description of the pipe and coating is as follows:

   a. Line Pipe

      6.625" OD x .432" W. T. Gr "B"; Weight Bare - 28.57/ft. coated with 22 mils of heat cured epoxy or coal tar enamel 6/32" thick, giving a specific gravity of 1.87 in salt water (64.0#/cu. ft.)

   b. Riser Pipe

      6.625" OD x .432" W. T. Gr "B"; Weight Bare - 28.57#/ft. coated with 22 mils of heat cured epoxy or coal tar enamel 6/32" thick, giving a specific gravity of 1.87 in salt water (64.0#/cu. ft.)

   c. Internal Coating

      The analysis of the transported products will be monitored and preventive measures such as pigging and/or inhibiting will be employed as necessary.

3. Valves and Flanges

   a. Below water valves and flanges will be A.N.S.I. 900 series with a rated working pressure of 2,160# P.S.I.

   b. Above water flanges and valves will be A.N.S.I. 600 series with a rated working pressure of 1,440# P.S.I.

4. The specific gravity of the product being transported is anticipated to be .60 (Air = 1.0), T = 60^{o}F.

5. Weight, type and spacing of anodes to be used as corrosion protection are shown on attached Drawing No. TA-L2-F507F-4500-1B entitled "Schematic". The life expectancy of the proposed pipeline is indefinite. The sacrificial anodes are designed for 40 year life and are to be replaced as necessary to extend life of pipeline.

6. The design of the proposed pipeline is in accordance with "Minimum Federal Safety Standards (Department of Transportation) Title 49, CFR, Part 192".

7. Maximum Allowable Operating Pressure (M.A.O.P.) = 1,440# P.S.I.G.

Maximum Capacity = 6.9 MMCF/D

Maximum Operating Pressure = 500# P.S.I.G.

A. Calculations

Formulas:

$$P = \frac{2st}{d}$$

$$M.A.O.P. = \frac{2st\ (F)\ (E)\ (T)}{d}$$

Whereas: P = 100% S.M.Y.S.
s = Specified Minimum Yield Strength
t = Nominal Wall Thickness in Inches
d = Nominal Outside Diameter in Inches
(F)= 0.50 for Riser Pipe
= 0.72 for Line Pipe
As per Title 49, CFR, Part 192.619
(E)= 1 - for seamless and DSA welded pipe
(T)= 1 - for temperature less than 250° F

a. Riser Pipe

6.625" O.D. x .432" W.T. Gr. "B"

$$P = \frac{2 \times .432" \times 35{,}000}{6.625"} = 4{,}564\#\ P.S.I.G.$$

(1) M.A.O.P. (Design)

$$M.A.O.P. = \frac{2 \times .432" \times 35{,}000 \times .50 \times (x)}{6.625"} = 2{,}282\#P.S.I.G.$$

(2) M.A.O.P. (Hydrostatic Test Pressure)

H.T.P. = P x 90%
= 4,564 x .90 = 4,108# P.S.I.G.
H.T.P. will be 2,160# P.S.I.G. for 4 hours
$M.A.O.P. = \frac{2,160}{1.5} = 1,440\#$ P.S.I.G.

(3) M.A.O.P. = 2,282# P.S.I.G. (Design) or
1,440# P.S.I.G. (H.T.P.)

b. Line Pipe

6.625" O.D. x .432" W.T. Gr. "B"

$P = \frac{2 \times 35,000 \times .432"}{6.625"} = 4,564\#$ P.S.I.G.

(1) M.A.O.P. (Design)

$M.A.O.P. = \frac{2 \times 35,000 \times .432" \times .72 \times (x)}{6.625"} = 3,286\#$ P.S.I.G.

(2) M.A.O.P. (Hydrostatic Test Pressure)

H.T.P. = P x 90%
= 4,564 x .90 = 4,108# P.S.I.G.
H.T.P. will be 2,160 P.S.I.G. for 8 hours
$M.A.O.P. = \frac{2,160}{1.25} = 1,728\#$ P.S.I.G.

(3) M.A.O.P. = 3,286# P.S.I.G. (Design) or
1,728# P.S.I.G. (H.T.P.)

Since there are A.N.S.I. 600 series valves in the system, the M.A.O.P. therefore is restricted to 1,440# P.S.I.G.

8. The producers equipment will be designed for 1,440# P.S.I.G.

9. The 16" line that the proposed line will tie into is 16" O.D. x .406" W.T. Gr. x-42 pipe.
   The riser is 16" O.D. x 500" W.T. Gr. x-42 pipe.

10. An originally signed copy of Non-Discrimination in Employment Stipulations is enclosed.

11. Company contact:

    Mr. Reno G. Robertson, Division Civil Engineer
    P.O. Drawer 53388, OCS
    Lafayette, Louisiana 70505
    (318) 233-7802

12. Tennessee Gas Pipeline Company's Draft No. 26740 in the amount of $145.00 of which $100.00 covers the application fee and $45.00 covers the first year's rental on 2.40 miles of right of way is also enclosed.

Please refer to your miscellaneous 014 file for a copy of a resolution approved by the Board of Directors authorizing the undersigned as Supervisor-Right of Way of Tennessee Gas Pipeline Company, a Division of Tenneco Inc., to sign for and on behalf of the Company.

We trust the above information will enable you to expedite the issuance of the Decision approving said right of way.

Yours very truly,

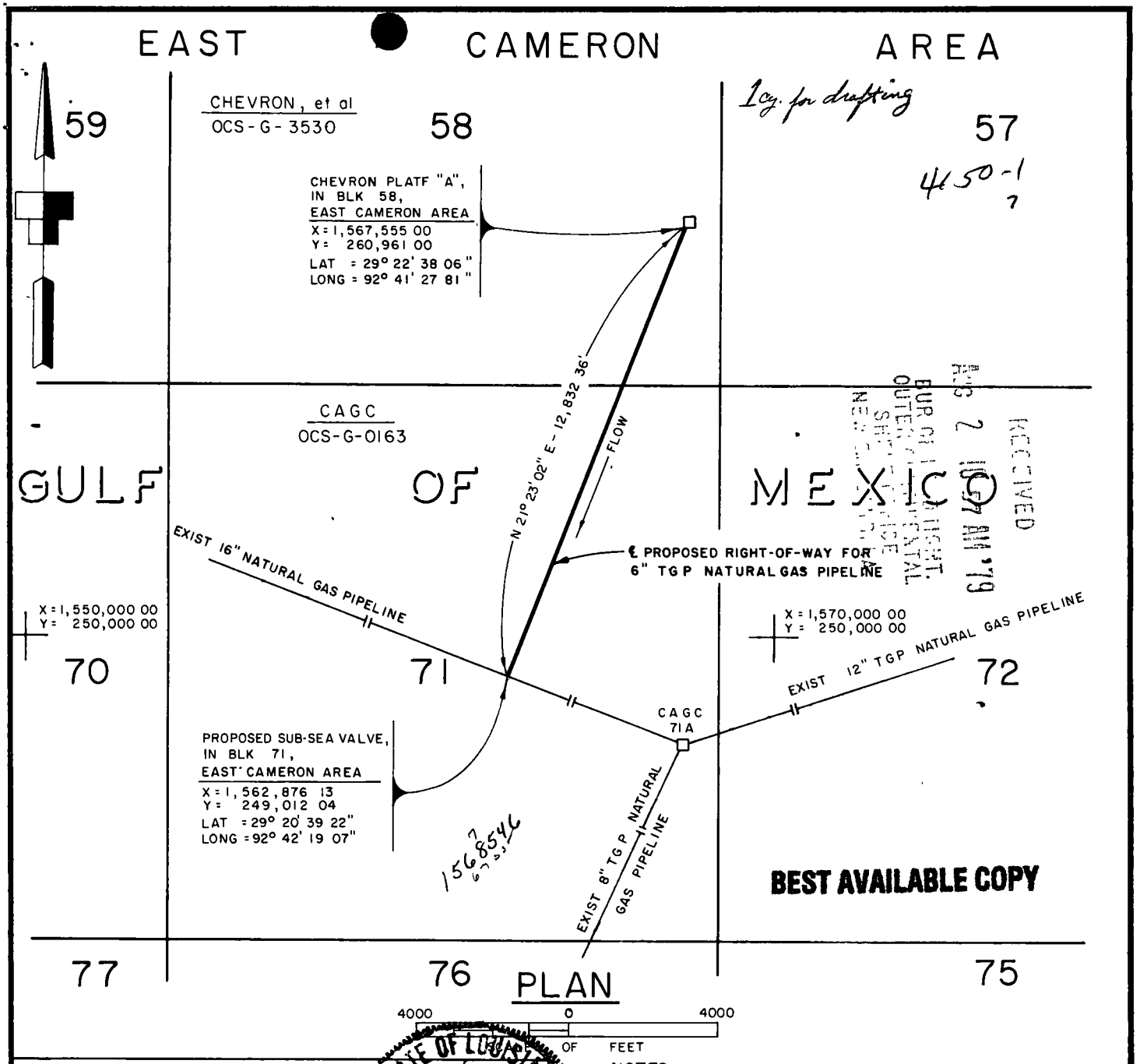
TENNESSEE GAS PIPELINE COMPANY
A Division of Tenneco Inc.

F. J. Millette

F. J. Millette, Supervisor
Rights of Way as
Agent and Attorney-in-Fact

RSP:FJM/kom

Certified Mail - Return Receipt #809091



1cy. for drafting

4500-1

7

1568546

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LOCATION OF RIGHT OF WAY HAS BEEN ACCURATELY DELINEATED UPON THIS MAP AND DESIGNED IN ACCORDANCE WITH DOT REGULATIONS

LARRY JAMES BROUSSARD III
LOUISIANA REGISTERED PROFESSIONAL CIVIL ENGINEER NO. 14589

STATE OF LOUISIANA
LARRY J. BROUSSARD
REG. No 14589
REGISTERED PROFESSIONAL ENGINEER

NOTES

THIS PIPELINE TO BE USED TO TRANSPORT NATURAL GAS FROM THE OUTER CONTINENTAL SHELF TO EXISTING FACILITIES ON SHORE, LOUISIANA

ALL BEARINGS SHOWN ARE LAMBERT

PROPOSED WIDTH OF RIGHT-OF-WAY 200 FT.

TOTAL LENGTH OF PIPELINE 12,832.36 FT = 2.4 MI.

DRAWING NO.	TITLE
TA-L2-F507F-4500-1A	PROFILE
TA-L2-F507F-4500-1B	SCHEMATIC
TA-L2-F507F-4500-1C	PIPELINE CROSSING DETAIL
TA-L2-F507F-4500-1D	VALVE GUARD DETAIL

NO	DATE	REVISION	REV.	CKD	APR

REFERENCE DRAWINGS

DRAWN BY SJC	DATE 7-6-79
CHECKED BY CJB	DATE "
CORRECT BY	DATE
APPROVED BY	DATE
SCALE SHOWN	C O.

Tennessee Gas Pipeline Company
Division of Tenneco Inc
Engineering Department Houston, Texas

APPROVED BY
FOR CHIEF ENGINEER

APPLICATION PLAT FOR PROPOSED NATURAL GAS PIPELINE RIGHT-OF-WAY

Tennessee Gas Pipeline Co.

TA-L2-F507F-4500-1

E C BLK 58-A LINE

OCS-4150

4450-1
8

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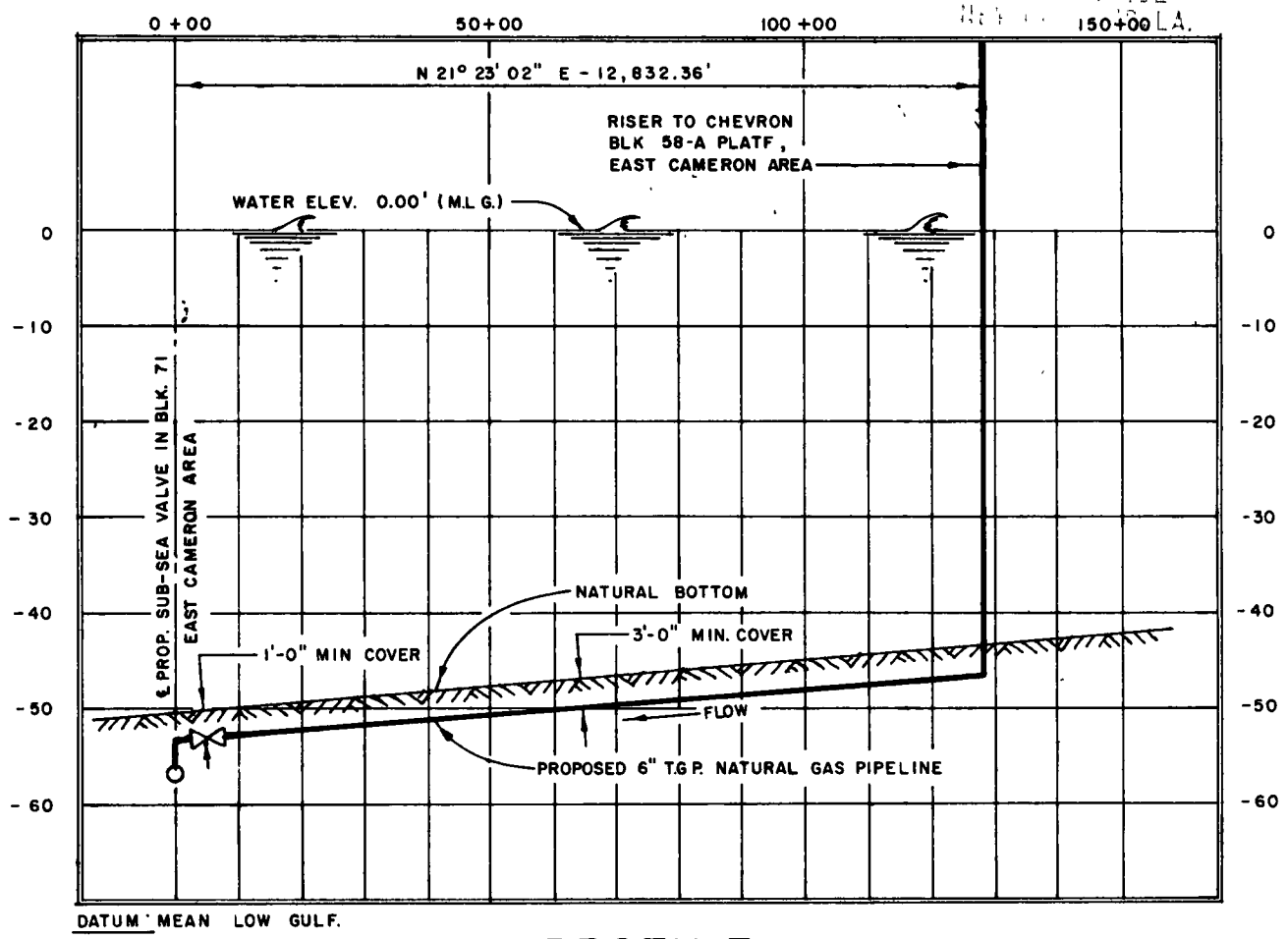
Aug 2 10 57 AM '79
BUR OF ENFORCEMENT.
OUTER CONTINENTAL
SHELF REGION
NEW ORLEANS, LA.



PROFILE

20 0 20
VERTICAL SCALE OF FEET

3000 0 3000
HORIZONTAL SCALE OF FEET

STATE OF LOUISIANA
LARRY I. BROUSSARD
REG. NO. 14[illegible]
REGISTERED
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING

DRAWING NO.	TITLE
TA-L2-F507F-4500-1	PLAN
TA-L2-F507F-4500-1B	SCHEMATIC
TA-L2-F507F-4500-1C	PIPELINE CROSSING DETAIL
TA-L2-F507F-4500-1D	VALVE GUARD DETAIL

NO.	DATE	REVISION	REV.	CKD	APR

REFERENCE DRAWINGS

DRAWN BY SJC	DATE 7-5-79
CHECKED BY CJB	DATE "
CORRECT BY	DATE
APPROVED BY	DATE
SCALE AS SHOWN	C O

Tennessee Gas Pipeline Company
Division of Tenneco Inc
Engineering Department — Houston, Texas

APPROVED BY
FOR CHIEF ENGINEER

APPLICATION PLAT FOR PROPOSED
NATURAL GAS PIPELINE RIGHT-OF-WAY

Tennessee Gas Pipeline Co.

TA-L2-F507F-4500-1A

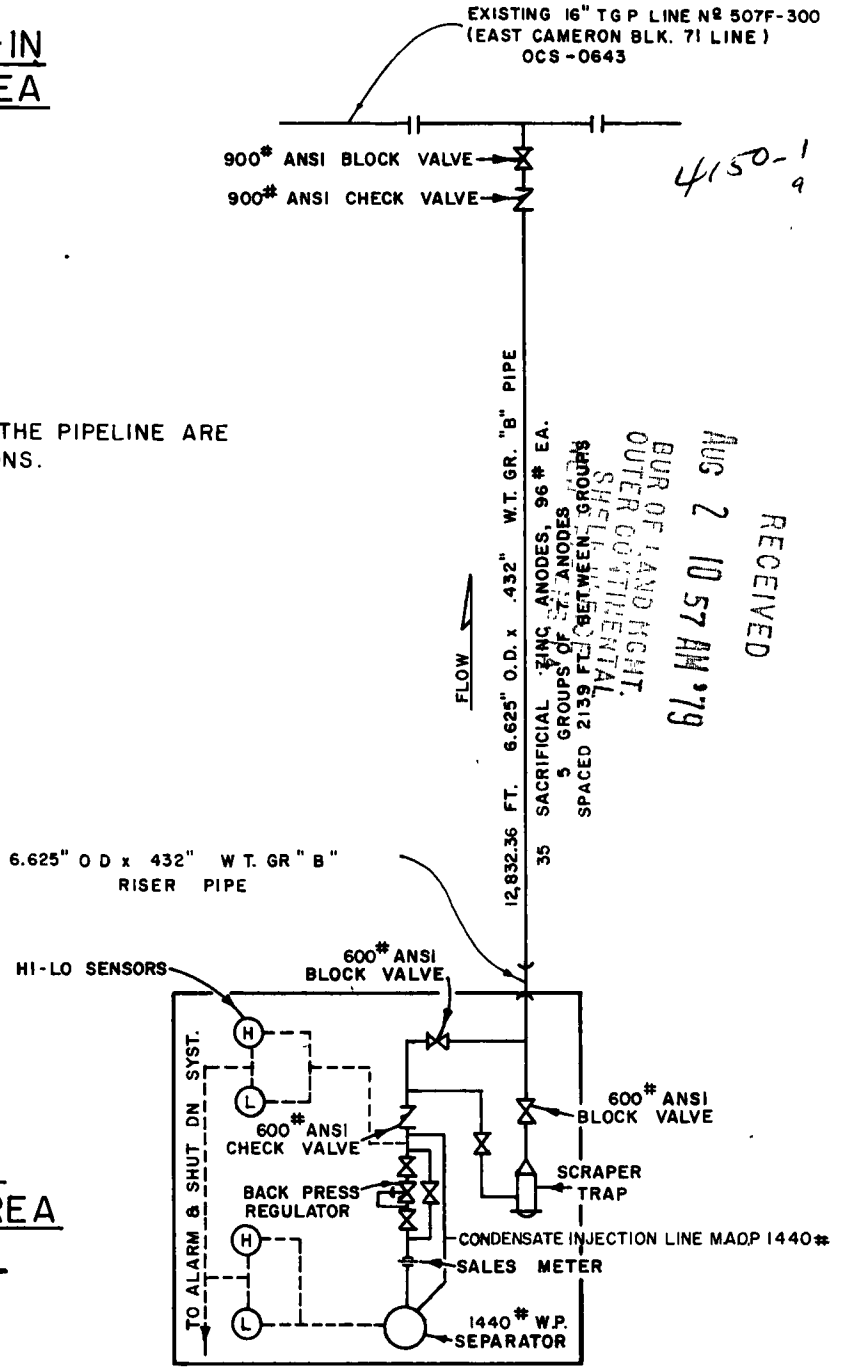
E C BLK 58-A LINE

OCS-P 4158

12,832.36 FT = 2.4 MILES

BEST AVAILABLE COPY

UNDER WATER TIE-IN
EAST CAMERON AREA
BLK. 71



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RECEIVED
AUG 2 10 57 AM '79
BUR OF LAND MGMT.
OUTER CONTINENTAL
SHELF OFFICE

NOTE.
THE DESIGN CHARACTERISTICS OF THE PIPELINE ARE IN COMPLIANCE WITH DOT REGULATIONS.

CHEVRON OIL CO.
EAST CAMERON AREA
BLK. 58-A PLATFORM

DRAWING NO.	TITLE
TA-L2-F507F-4500-1	PLAN
TA-L2-F507F-4500-1A	PROFILE
TA-L2-F507F-4500-1C	PIPELINE CROSSING DETAIL
TA-L2-F507F-4500-1D	VALVE GUARD DETAIL

NO.	DATE	REVISION	REV.	CKD	APR

REFERENCE DRAWINGS

DRAWN BY SJC	DATE 7-9-79	
CHECKED BY CJB	DATE "	
CORRECT BY	DATE	
APPROVED BY	DATE	
SCALE NONE	C O	

Tennessee Gas Pipeline Company
Division of Tenneco Inc
Engineering Department — Houston, Texas

APPROVED BY
FOR CHIEF ENGINEER

SCHEMATIC
PROPOSED 6" EAST CAMERON
BLK. 58-A LINE
EAST CAMERON AREA — GULF OF MEXICO

Tennessee Gas Pipeline Co.

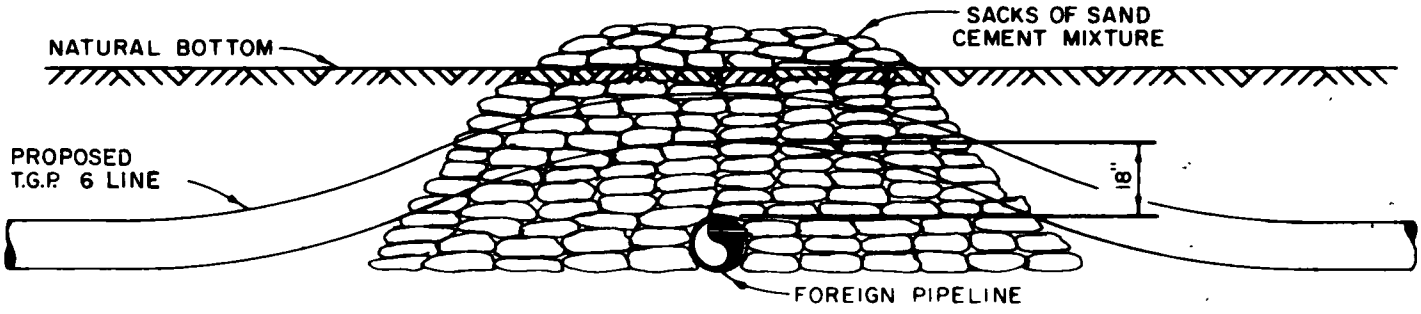
TA-L2-F507F-4500-1B

E C BLK 58-A LINE

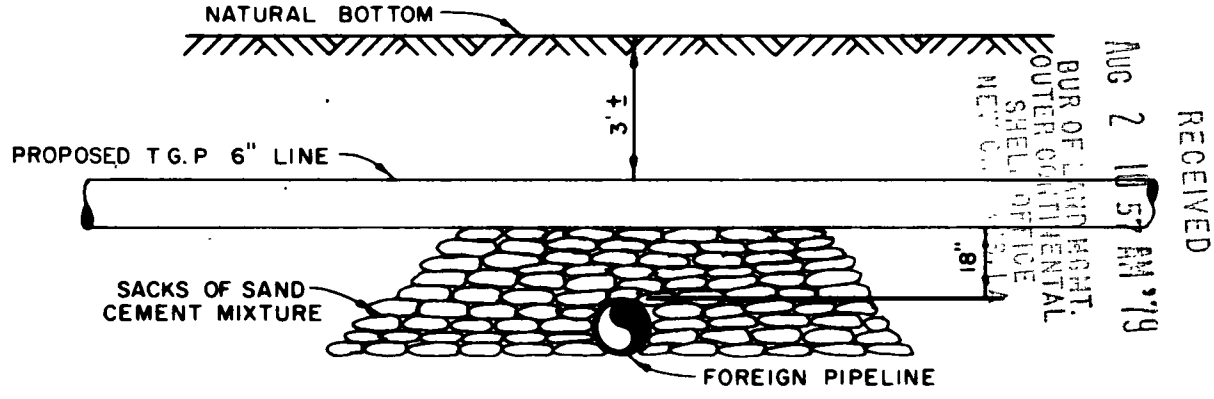
OCS-G 4150

BEST AVAILABLE COPY

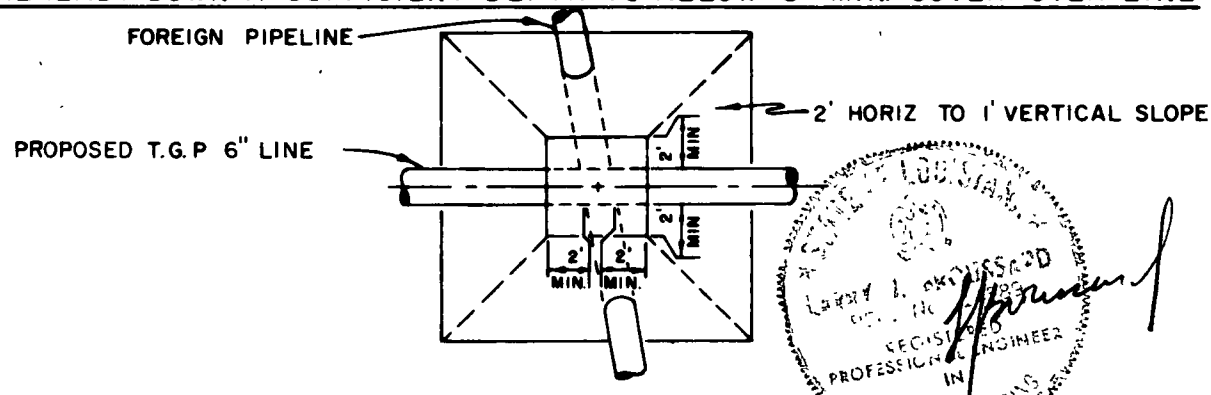
4150-1
10



CROSSING METHOD USED WHEN FOREIGN PIPELINE CAN NOT BE JETTED DOWN AND IS TOO SHALLOW TO ALLOW 3' MIN COVER OVER LINE



CROSSING METHOD USED WHEN FOREIGN PIPELINE CAN BE JETTED DOWN OR IS ALREADY DOWN A SUFFICIENT DEPTH TO ALLOW 3' MIN. COVER OVER LINE



PLAN

NO	DATE	REVISION	REV.	CKD	APR

DRAWING NO	TITLE
TA-L2-F507F-4500-1 TA-L2-F507F-4500-1A	PLAN PROFILE

REFERENCE DRAWINGS

DRAWN BY SJC	DATE 7-6-79
CHECKED BY CJB	DATE "
CORRECT BY	DATE
APPROVED BY	DATE
SCALE NONE	C O

Tennessee Gas Pipeline Company
Division of Tenneco Inc.
Engineering Department — Houston, Texas

APPROVED BY
FOR CHIEF ENGINEER

PROPOSED 6" NATURAL GAS PIPELINE
TYPICAL PIPELINE CROSSING
SEPARATION DETAIL
EAST CAMERON AREA — GULF OF MEXICO

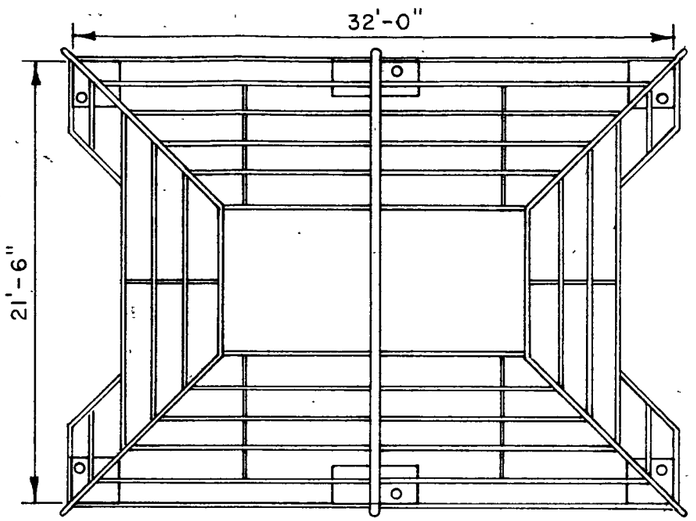
Tennessee Gas Pipeline Co.

TA-L2-F507F-4500-1C

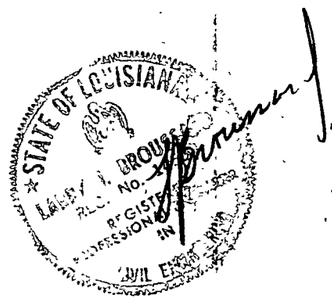
E C BLK 58-A LINE

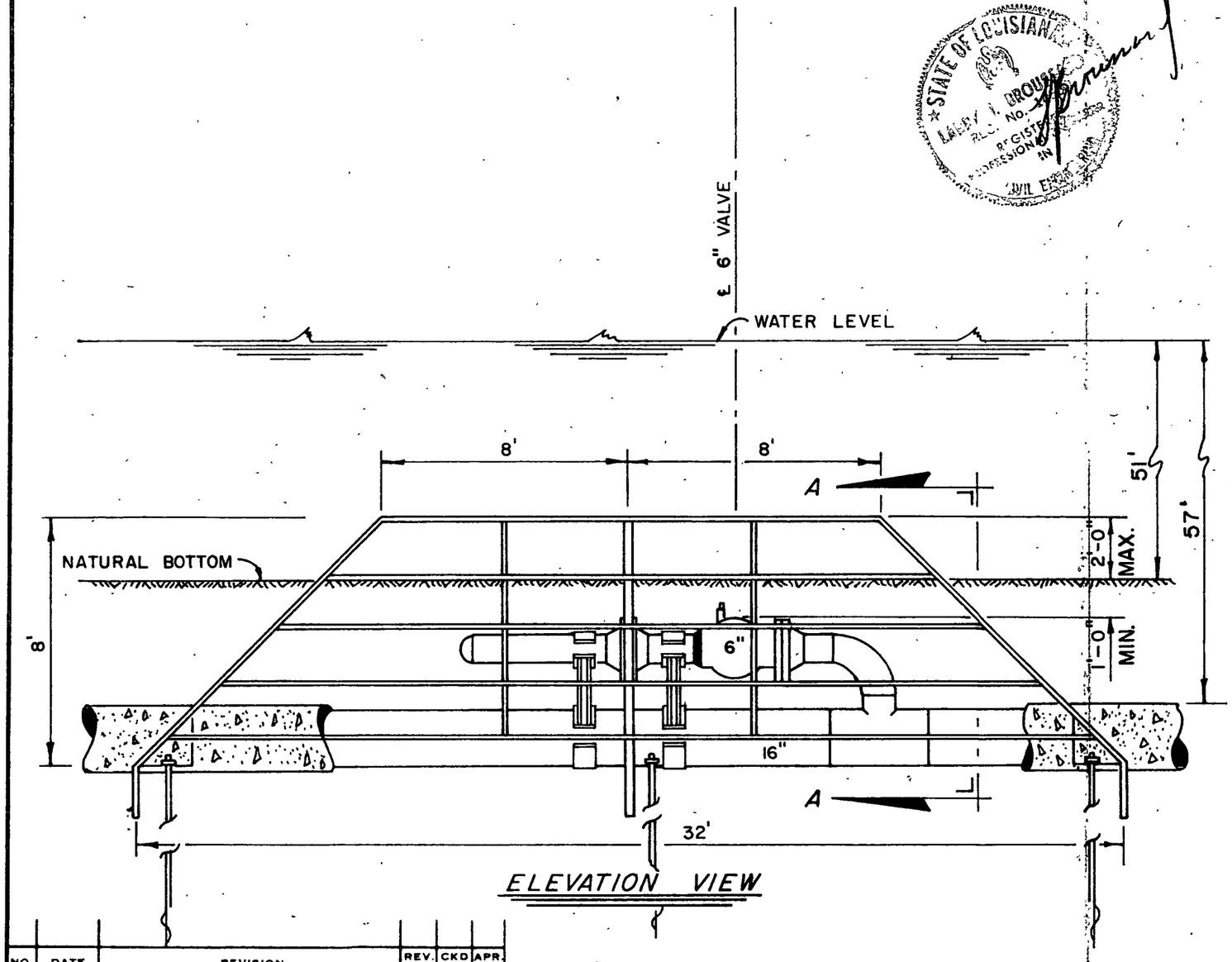
OCS-G 4150

4150-1
11

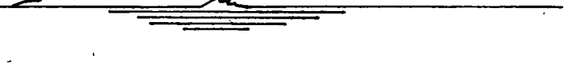


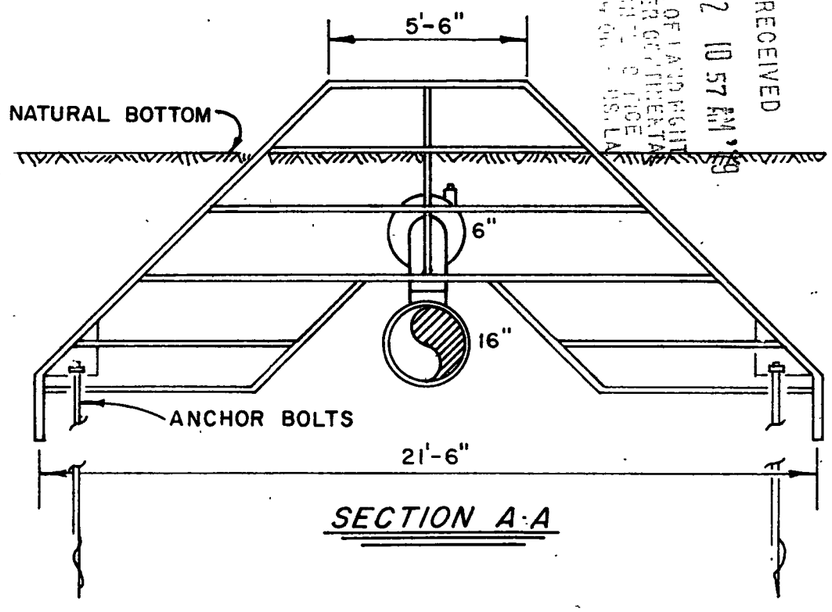
PLAN





ELEVATION VIEW





SECTION A-A

NO	DATE	REVISION	REV. BY	CKD BY	APR. BY

REFERENCE DRAWINGS	
DRAWING NO	TITLE
TA-L2-F507F-4500-1	PLAN
TA-L2-F507F-4500-1A	PROFILE

Tennessee Gas Pipeline Company
Division of Tenneco Inc
Engineering Department OCS-G 4150 **Houston, Texas**

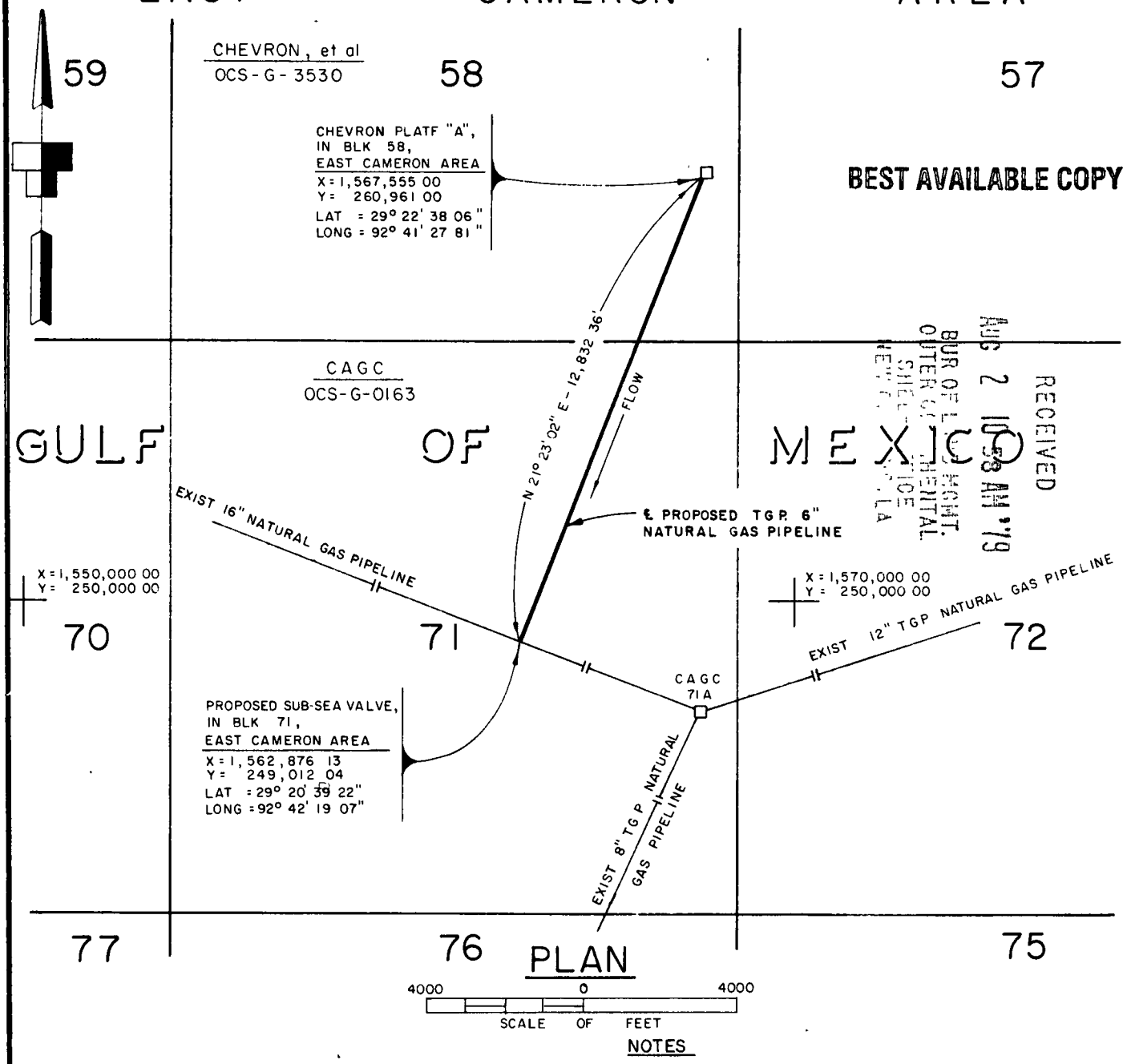
DRAWN BY SJC	DATE 7-9-79
CHECKED BY CJB	DATE "
CORRECT BY	DATE
APPROVED BY	DATE
SCALE NONE	C O

PROPOSED VALVE GUARD INSTALLATION

ON 6" SUB-SEA VALVE

EAST CAMERON AREA — GULF OF MEXICO

APPROVED BY
FOR ASST CHIEF ENGINEER
Tennessee Gas Pipeline Co.
TB-L2-F507F-4500-1D



NOTES

ALL BEARINGS SHOWN ARE LAMBERT

TOTAL LENGTH OF PIPELINE 12,832 36 FT = 2.40 MILES

NO.	DATE	REVISION	REV.	CKD	APR

DRAWING NO.	TITLE
	REFERENCE DRAWINGS

DRAWN BY SJC	DATE 7-6 79
CHECKED BY C J B	DATE "
CORRECT BY	DATE
APPROVED BY	DATE
SCALE SHOWN	C O

Tennessee Gas Pipeline Company
Division of Tenneco Inc
Engineering Department Houston, Texas

APPROVED BY Reno G. Robertson FOR CHIEF ENGINEER

PROPOSED T.G.P. 6" NATURAL GAS PIPELINE
CROSSING THRU BLKS. 58 & 71
EAST CAMERON AREA

Tennessee Gas Pipeline Co.

TA-L2-F507F-4500-2

E C BLK 58-A LINE

OCS-D 4150

Tennessee Gas Pipeline Company
6 5/8" gas P/L & 58, Chevron "A", G 353 ?
TO ASSTE W EXIST TGPL EC71, 0163 [-643] 4450-1

(12,832.36') 2.430377MI

PIPELINE APPLICATION CHECK LIST

INSTRUCTIONS: Check the blank on the left if the statement is affirmative or correct data submitted. Mark N/A (not applicable) where appropriate. Place an X in the blank if the answer is no or if the data was not submitted. All blanks marked X must be rectified to a check (or qualified) before approval can be given for the pipeline. Enter data in the blanks on the right.

A. Verify the following general information:

I. SOP

_____ a. Do the leases involved on the P/L application appear on the current Suspension of Production (SOP) Lease List?

II. POD

_____ a. Is the pipeline presently covered by an approved Plan of Development (POD)? (Discuss ROU&E with Doug.) If yes, go to III. If No, go to 250.34. (Requires submittal to POD/P by operator to District.)

III. USGS Application

_____ a. The applicant is a Federal lease holder and the pipeline is to be used for such purposes as:

_____ 1. Moving production to a control point for gathering, treating, storing, or measuring.

_____ 2. Delivery of production to a point of sale.

_____ 3. Delivery of production to a pipeline operated by a transportation company.

_____ 4. Moving fluids in connection with lease operations, such as for injunction purposes.

_____ b. The pipeline is within the lease boundary owned by the operator (If yes, include 30 CFR 250.19(b) in approval.)

_____ c. Pipeline is within continguous lease boundaries. (If yes, include 30 CFR 250.19(b) in approval.)

_____ d. Pipeline is within non-continguous lease boundaries. (If yes, include 30 CFR 250.18(c) and 30 CFR 250.19(b) in approval.)

_____ e. Lessee's "intent to cross" letter are received. (Wait 30 days for letters of objection. Only objections concerning interference with lease operations will be considered.)

_____ f. Pursuant to Secretarial Order 2974 of April 30, 1975, check the following:

4150-2

_____1. FWS notified _____.

_____2. FWS comment received _____.

_____3. BLM notified _____.

_____4. BLM comment received _____.

_____5. Environmental Impact Evaluations completed _____.

_____6. If related to new POD/P, date of POD/P approval _____.

IV. BLM Application

✓ a. The pipeline must be able to be subjected to common carrier provisions (i.e., no downstream production facilities or downstream pipelines which could not be subjected to common carrier provisions).

V. DOT Pipelines

✓ a. The pipelines are shoreward of the outlet flange at the first process facility (If yes, include 49 CFR 192 for gas P/L or 49 CFR 195 for oil P/L in approval).

VI. DOI Pipelines

N/A a. Pipelines not covered by V above.

B. Verify that the information shown on the safety equipment schematic drawing contains the following:

✓ I. The pipeline leaving the platform receiving production from the platform is equipped with high and low pressure sensors to directly or indirectly shut-in the well or wells on the platform.

N/A II. The pipeline delivering production to production facilities on the platform is equipped with an automatic fail close valve tied into the automatic and remote shut-in system. SSTI

N/A III. The pipeline crossing the production platform which does not deliver production to the platform, but which may or may not receive production from the platform, is equipped with high and low pressure sensors connected to an automatic fail close valve located in the upstream portion of the pipeline at the platform. In addition, the sensors are tied into either the platform's automatic and remote shut-in system or an independent remote shut-in system.

✓ IV. The pipeline boarding the platform is equipped with a check valve. SSTI

✓ V. The pipeline leaving the platform is equipped with a check valve.

N/A VI. The pipeline pump is shown as well as its associated high and low pressure shut-in device.

✓ VII. If pipeline pilots are located on any pressure vessel or downstream of a departing check valve, all flow restriction(s), (back pressure valve(s), chokes), downstream of the process vessel, or wellhead, and upstream if check valve(s) must be indicated on the schematic.

If flow restriction(s) exist downstream of any process vessel a low pressure sensor must be installed between the flow restriction(s) and the departing check valves and high pressure sensor must be installed downstream of flow restriction(s).

Reference API RP 14C, Pages 23 and 59

✓ VIII. Pressure source is drawn into the schematic with the following:

✓ a. Source SEPARATOR.

✓ b. Maximum source pressure, psig 1440.

✓ IX. The rated working pressures of all separators, pumps, compressors, valves, flanges, and fittings upstream of and including the boarding automatic fail close valve are shown.

1440

C. Verify that the location plat depicts the following:

✓ I. Location of pipeline

✓ II. Length of pipeline

✓ III. Size of pipeline

✓ IV. Type of service

✓ V. Direction of flow

D. Verify that the information given on the submitted data sheet is complete; and calculate the $MAOP_{sc}$, $MAOP_{rc}$, $MAOP_{p/l}$.

I. General information for calculating $MAOP_{sc}$, $MAOP_{rc}$, etc.

a. Size of pipeline, inches 6.625

b. Weight of pipeline, lbs./ft. 28.57

c. Grade of pipeline B

d. Wall thickness, inches 0.432

e. Size of riser, inches 6.625

f. Weight of riser, lbs./ft. 28.57

g. Grade of riser B

h. Wall thickness of riser, inches 0.432

i. Minimum WP rating of piping, fittings, valves, psig 1440

j. Hydrostatic test pressure (HTP), psig Riser 2160 Pipe 2160

k. Hold time, hrs. 4 8

l. Classification of pipeline (oil or gas) gas

m. Type of pipe (ASTMAI06, API5L, etc) ?
Note: If ASTM A 53 Reference API RP 14E, Section 2.1.a(2)

II. DOI Pipelines

a. IP @ SMYS for submerged pipeline = $\frac{2st}{D}$

b. (.72 x IP @ SMYS) for submerged pipeline = _____ ($MAOP_{sc}$)

c. IP @ SMYS for riser = $\frac{2st}{D}$ = _____

d. (.60 x IP @ SMYS) for riser = _____ ($MAOP_{rc}$)

e. See Ii above ($MAOP_{pfv}$) = _____ ($MAOP_{pfv}$)

_____f. Is 1.25 MSP $\leq$ HTP $\leq$ .95 (IP @ SMYS for smaller IP of a and c above)

_____ $\leq$ _____ $\leq$ _____

NOTE: If not, inquire of the operator as to what he considers a limit of testing as a percentage of IP @ SMYS.

Operator's answer _____% of IP @ SMYS (for smaller IP)

_____g. HTP/1.25 = _____

_____h. Is HTP hold time $\geq$ 2 hours

_____i. MAOP of receiving pipeline from IV _____.

_____j. $MAOP_{p/1}$ = the smallest of b, d, e, g, and i above

_____ ($MAOP_{p/1}$)

_____k. Test pressure ANSI & API carbon steel RTJ & RF Flanges and Valves

_____ (From Table 3.1 Page 31 API RP 14E)

_____l. Is k > HTP

NOTE: If not, add statement in approval letter to insure valves and flanges are not subjected to test pressure.

_____m. Is j $\geq$ MSP

_____ $\geq$ _____

If not, one of the following is necessary:

_____1. Redundant safety equipment is afforded.

_____2. A departure from the requirement for redundant safety equipment.

,15 -6

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III. DOT Pipelines

a. IP @ SMYS for submerged pipeline = $\frac{2st}{D}$ = $\frac{(2)(35000)(.432)}{6,625}$ = 4564 #

b. (.72 x IP @ SMYS) for submerged pipeline = 3286 ($MAOP_{sc}$)

c. IP @ SMYS for riser = $\frac{2st}{D}$ =

d. For oil P/L (.60 x IP @ SMYS) for riser = _____ ($MAOP_{rc}$)

For gas P/L (.50 x IP @ SMYS) for riser = 2282

e. See Ii above 1440 ($MAOP_{pfv}$)

✓ f. Are b, d, and e ≥ MSP

1440 ≥ 1440

NOTE: If not, a departure is necessary requiring redundant safety equipment.

N/A A written request for a departure has been received and the redundant safety equipment is satisfactory.

g. Limit of Testing

N/A 1. For oil P/L:

Is 1.25 MSP ≤ HTP ≤ .95 (IP @ SMYS for smaller IP of a and c above)

_____ ≤ _____ ≤ _____

✓ 2. For gas P/L riser component:

Is 1.50 MSP ≤ HTP of riser ≤ .95 (IP @ SMYS of c above)

2160 ≤ 2160 ≤ 4336

✓ 3. For gas P/L submerged component:

Is 1.25 MSP ≤ HTP of submerged component ≤ .95 (IP @ SMYS of a above)

1800 ≤ 2160 ≤ 4336

NOTE: If not, inquire of the operator as to what he considers a limit of testing as a percentage of IP @ SMYS.

N/A Operator's answer _____% of IP @ SMYS (for smaller IP)

h. $MAOP_{p/l}$ based on HTP

N/A 1. For oil P/L HTP/1.25 = _____

2. For gas P/L riser component HTP/1.5 of riser = 2160 / 1440

3. For gas P/L submerged component HTP/1.25 of submerged component = 2160 / 1728

N/A i. For oil P/L Is HTP hold time ≥ 24 hours

✓ For gas P/L Is HTP hold time ≥ 8 hours

j. $MAOP_{p/l}$ = the smallest of b, d, e, and h above

✓ 1440 on G-0643 P/L ($MAOP_{p/l}$) 1232

✓ k. Test pressure ANSI & API carbon steel RTJ & RF flanges and valves

2175 (From table 3.1 page 31 API RP 14E)

✓ l. Is k > HTP

NOTE: If not, add statement in approval letter to insure valves and flanges are not subjected to test pressure.

☆ ≠ HTP ÷ 1.5 = 1440, However, 0643 PL (1232 psig)

4150-8

IV. Pipeline Receiving Production (Installed Prior to July 31, 1977)

		Submerged Component	Riser
a.	Size, inches	16"	16"
b.	Grade	X42	X42
c.	Wall thickness, inches	.406	.500
d.	Minimum working pressure of valves and flanges	(MAOPpfv)	
e.	Date of last hydrostatic test		
f.	HTP, psig		
g.	Hold time, hours		
h.	MAOP based on HTP HTP/1.25		
i.	IP@SMYS for submerged P/L 8ST/D		
j.	(.72 X IP@SMYS) for submerged P/L	(MAOPsc)	
k.	IP@SMYS for riser 2ST/D		
l.	(.60 X IP@SMYS) for riser	(MAOPrc)	

m. If the receiving P/L is a DOT gas P/L and has not been tested since July 1, 1971, then what is the HAOP to which the segment was subjected during the 5 years prior to July 1, 1976?

n. MAOP of receiving P/L _ MAOP of proposed P/L _
MAOP of proposed P/L

MAOP
BLM OCS-G 0643
1232 psig
Per AB/GHS Jr
12:00 PM 8/16/79

4150-9

E. Verify that the information given on the submitted data sheet is complete; and calculate the life expectancy of the pipelines corrosion protection ($LE_{p/l}$)

I. General Information for Calculating $LE_{p/l}$

✓ a. Type of corrosion protection (platform anodes, P/L anodes, or rectifiers)

N/A b. If platform anodes are used:

1. Type of anode _____

2. Weight of unit anode, lbs. _____

✓ c. If pipeline anodes are used:

1. Type of anode ZINC

2. Spacing interval, ft. 2139

3. Weight of unit anode, lbs. 96

II. Calculated Life Expectancy of Corrosion Protection

N/A a. If platform anodes are used, are they considered adequate _____

✓ b. If pipeline anodes are used:

$LE_{p/l} = 3.82 \times 10^4 \times W^o/DIR? = \frac{3.82 \times 10^4 \times 96 \times 7}{6.625 \times 3209 \times 26} = 46.44$

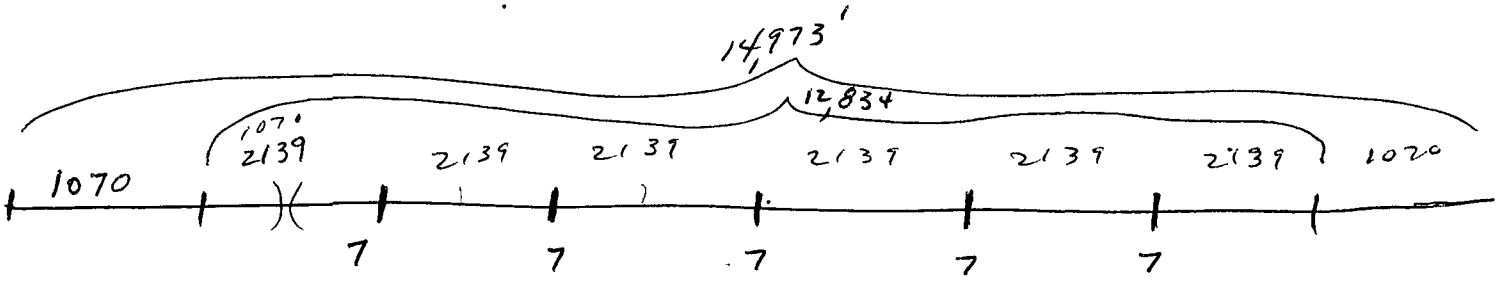
W^o = weight of one anode, pounds =

D = outside diameter of pipe, inches

I = interval = length of pipe, feet ÷ total number of anodes =

R = consumption rate, lbs./amp-yr.

✓ c. Is our calculated $LE_{p/l} \geq 20$ years



4150-10

F. Verify that the information given on the submitted data sheet is complete; and calculate the specific gravity of the pipeline ($SP_{p/1}$)

I. General Information pertaining to $SG_{p/1}$

✓ a. Description of pipelines protective coating 22 MILS EPOXY or Coal Tar Enamel 6/32"

✓ b. Description of risers protective coating _____

✓ c. Description of pre-concrete coating N/A

✓ d. Density of concrete, lbs./cu. ft. _____

✓ e. Thickness of concrete, inches _____

✓ f. Thickness of asphalt/somastic _____

✓ g. Gravity or density of products _____

✓ For gas .60 (air = 1.0)

✓ For oil/condensate N/A ° API, N/A (water = 1.0)

✓ h. Given $SG_{p/1}$ 1.87

II. $SG_{p/l}$

✓ a. Expoxy-coated pipelines: $\frac{(28.57)(2.865)}{(6.625)^2} = 1.8649$

$SG_{p/l} = 2.865\ W/D^2$ =

W = weight of bare pipe, lbs./ft.

D = diameter of pipe, inches

N/A b. For weighted pipelines:

$$SG_{p/l} = \frac{d_c}{d} + \frac{k_2}{(T-k_1)^2}\left(\frac{W+P}{k_3} - \frac{d_c}{d}\right)$$

d_c = density of concrete, lbs./ft.^{3}

d = density of fluid in which pipeline is submerged, lbs./ft.^{3}

k_1, k_2, k_3 = coefficients from tables

T = thickness of concrete coating, inches

W = weight of bare pipe, lbs./ft.

P = weight of double enamel coat and felt wrap, or weight of asphaltmastic coating, lbs./ft.

$SG_{p/l}$ = _____

✓ c. Is our calculated SG $\cong$ operator's given SG

1.8649 $\cong$ 1.87

NOTE: These values should be approximately the same. If not, resolve. If the SG is close to a value of 1, the pipeline is unacceptable and must be weighted with concrete or anchored securely to the bottom.

G. Verify the following general information:

✓ I. Water Depth, ft. 53 (Max) 40 (Min)

✓ II. Burial depth, ft. 3

✓ III. Maximum Operating Pressure (MOP) 500

✓ IV. Capacity 6,944cf/D @ 500